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EDITORIAL

ARTICLES

CASE REPORTS

EDITORIAL:

MEDICAL INFORMATION IN PRINT AND ELECTRONIC MEDIA

The world has become global village in recent years, thanks to advances in technology. The government of Pakistan has also liberalized its policy of awarding license to print and electronic media. In recent years many satellite TV channels and newspaper have come up in the market bringing dearth of information to the people even in remote areas of Pakistan.

In this era of competitive market, medical community is also taking advantage of this avenue for promotion of their businesses but few doctors have started lobbying for themselves through this channel. There is now option of buying air time on satellite channel and any information related to diseases and treatment can be given. Doctors also approach print media through their contacts and publicize themselves by narrating achievements related to various illnesses/ diseases. This sometimes lead to humiliation to families and patients whose identity is disclosed in terms of the hospital to which they are admitted and at times their names and photographs are also shown. This is non ethical practice and credibility, authenticity and originality of such information are always questionable. This by PMDC rules is also punishable act. By government laws no person attached to public sector can approach press or electronic media without prior permission of the competent authority and even then identity and affiliation of such person is not disclosed to public as it leads to advertisement of that person. All such information is given through press releases issued by hospital administration or a proper news conference can be called upon with panel of experts, to answer question related to particular news.

To help people in accessing true information it is the duty of regulatory bodies to formulate laws which should punish all such individuals, for example with-drawl of practicing license if wrong information is given to public. All such activities should be assessed by panel of expert which should be authorized to issue NOC to such information to be released to public through print and electronic media.

It is time to act before its, too late .

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COMPARATIVE STUDY OF NON STEROIDAL ANTI INFLAMMATORY DURGS IN POSTOPERATIVE PAIN

SHAHEEN SHAH, MEHRUNISSA SOOMRO, URMLA KELLA.

K ALTAF TALPUR, WALI DINO DAL.

ABSTRACT

Objective: To compare the efficacy of ketoprofen and diclofenac sodium in the management of postoperative pain.

Patients and Methods: The study was conducted in Surgical Unit-I with the collaboration of Pharmacology Department Liaquat University of Medical & Health Sciences Jamshoro from May 2002 to February 2003 (10 months). This study was carried out on 100 patients, 50 for each group (group-A ketoprofen and group-B diclofenac sodium). Assessment of analgesic action of two drugs was carried out on a prepared proforma designed for the study. Grading of severity of pain was based on clinical grounds and visual analogue scale. Postoperative requirement of these analgesic drugs regarding dosage, duration and efficacy were compared.

Results: Hundred postoperative patients were selected in this study, which included 50 patients in each group. Majority of patients belonged to 20 – 40 years of age with mean age in group-A of 35.58 years, and in group-B, 29.96 years. Male to female ratio in group-A was 1:19. and group-B=1:13. All underwent major surgical procedures under general anaesthesia and were assessed for postoperative pain relief. Severe pain was experienced by most of the patients in group-A (45-90%) and group-B (44-88%). Onset of analgesia of each drug varied from 15 – 30 minutes, but it revealed early response i.e 15-20 minutes in group-A (46-92%) as compared to group-B (42-84%). Average duration of analgesia was 8 – 12 hours, but maximum effect i.e 12 hours was seen in group-A (45-90%) as compared to group-B (39-78%). Opioids were given to 30% of patients in group-A and 36 % of patients in group-B. Side effects were seen more in cases of group-B as compared to group-A.

Conclusion: NSAIDs are as effective as opioids in postoperative pain relief. They also decrease the use of opioids post-operatively. Ketoprofen is more potent analgesic as compared to diclofenac sodium because of its dual mode of action i.e. peripheral as well as central. It has minimum side effects

KEY WORDS: Postoperative pain, Ketoprofen, Diclofenac sodium, Analgesia

INTRODUCTION

Pain is mainly a protective mechanism for the body, in reaction to tissue damage, and it causes the individual to react to remove the pain stimulus[1] Its pathway comprises of afferent nociceptive nerve endings carrying pain stimuli via Aδ and C nerve fibers to the brain stem, thalamus and higher centers, whereas inhibition occurs via mid brain through dorsal horn cells[2]. Acute postoperative pain is a complex sensation and its relief is an essential component of good postoperative care[2]. Different operations cause different level of postoperative pain and individual patient vary in their response[3]. Control of pain has always been concern for surgeons particularly the

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incisional pain after surgery, because that may lead to different complications due to restriction of movements of patients. Thus pain relief helps in early recovery, early mobilization of patients to prevent life threatening complications like deep vein thrombosis, pulmonary embolism etc and early return to home with short hospital stay and economical benefits[4].

NSAIDs relieve the pain by inhibiting cycloxygenase pathway thus blocking the prostaglandin formation and leading to less sensitization of nociceptive nerve endings to the inflammatory mediators like histamine, serotonin, bradykinin and leukotrienes etc. They also act via central mechanism and some central component to the analgesic effect is responsible[5]. NSAIDs are commonly used to relieve postoperative pain after minor and major surgery. When given on the first day they reduce requirement of opioids by 30% and also decreases the risk of sedation, respiratory depression, vomiting and gastro intestinal stasis, which are main side effects of Opioids[1].

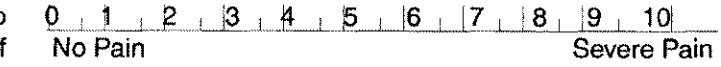
Injectable NSAIDs for pain relief are inexpensive, time tested and also have slow onset of analgesia with long duration of action, which prevents over dosage[6]. Ketoprofen is a propionic acid derivative, potent analgesic and has dual mode of action i.e. peripheral as well as central. Peripheral action by reducing the excitability of peripheral nociceptive receptors, central action by penetrating into C.S.F, enhancing CNS level of kynurenic acid which is a strong antagonist of N-methyl D- aspartate receptors[7,8]. Diclofenac sodium is phenyl acetic acid derivative, non-selective cycloxygenase inhibitor and mainly acts through peripheral route. After oral administration the bioavailability is 30-70% but it is good after intramuscular and intravenous route[9].

PATIENTS AND METHODS:

This is a randomized study in which comparison of two groups of NSAIDs have been assessed in the management of postoperative pain. This study was carried out in the Department of Surgery unit-I, at the Liaquat University Hospital Jamshoro.

In this study 100 patients were inducted. They were divided in to 2 groups, 50 patients in each, who underwent major surgical procedures under general anaethesia. Injection ketoprofen 100 mg. was given to group-A patients, injection diclofenac sodium 75mg twice a day for 3 days was given to group-B patients. In both groups route of administration was intramuscular.

Assessment of analgesic action of two drugs was carried out on a prepared proforma designed for the study. Grading of severity of pain was based on clinical grounds and visual analogue scale (fig. I)



1. No Pain 0
2. Mild Pain 1-5 cm
3. Moderate Pain 5.1 – 7.5 cm
4. Severe Pain 7.6 – 10 cm

Figure. I visual analogue scale

This is a 10cm long strip in which 0 is marked with no pain,1-5 cm by mild pain,5.1- to 7.5 cm by moderate pain and 7.6 to 10cm by severe pain[10].This was marked by doctor attending patients. Postoperative requirement of analgesic drugs was monitored in both groups for three consecutive days post-operatively along with need of opioids. Later on the patients were shifted on oral alternative therapy according to their need.

RESULTS

The patient's age ranged from 20 to 70 years in both groups with the mean age of group-A 35.58 years and group-B 29.96 years. Male to female ratio in group-A was 1:1.92 and group-B 1:1.39. Majority of patients in both groups underwent pyelolithotomy group-A 17 (34%), group–B 21(42%) and cholecystectomy, group A 18 (36%), group-B 12(24%). Severe pain was experienced by most of the patients postoperatively group-A=45(90%), group-B=44(88%)). Onset of analgesia with each drug varied from 15-30min but it revealed early response that is 15-20 minutes with ketoprofen 46 cases (92%) as compared to diclofenac sodium 42 cases (84%) (Table-I). The average duration of analgesia was 8-12 hours. Maximum effect i.e 12 hours was seen in 45 patients (90%) in group - A and 36 patients (78%) in group B, Requirement of opioids as additional drug for control of pain was needed in 15 patients (30%) in-group A and in 18 patients (36%) in-group B (Table II). Side effects including gastrointestinal disturbances, pain at local site of injection were found more in group B as compared to group A. (Table III).

DISCUSSION

Pain is probably the most common problem that derive the patient to seek medical advice[11]. Although pain threshold vary from patient to patient, but in about 75% of surgical cases post-operative incisional pain is sufficiently severe to warrant its relief[4]. The effective control of postoperative pain is important not only for humanitarian reason but also for physiological benefits as it provides smoother post operative recovery, early discharge from hospital and reduces the onset of chronic pain syndrome[12].

This study compares the analgesic effect of ketoprofen

TABLE-I ONSET OF ANALGESIA

S.NO	Onset of Analgesia after 1st injection	GROUP – A No of patients	%	GROUP-B No of patients	%
1.	15 minutes	40	80.00%	35	70.00%
2.	20 minutes	6	12.00%	07	14.00%
3.	30 minutes	4	8.00%	08	16.00%
	Total	**50**	**100%**	**50**	**100%**

TABLE-II NEED OF OPIOIDS IN EACH GROUP

S.NO	Need of Opioids	GROUP – A No of patients	%	GROUP-B No of patients	%
1.	Opioid needed	15	30.00%	18	36.00%
2.	Opioid not needed	35	70.00%	32	64.00%
	Total	**50**	**100%**	**50**	**100%**

TABLE-III SIDE EFFECTS PRODUCED BY DRUGS IN EACH GROUP

S.NO	Side Effects	GROUP – A No of patients	%	GROUP-B No of patients	%
1.	G.I. Side effects	13	26.00%	17	34.00%
I	Retrosternal burning	06	12.00%	09	18.00%
Ii	Nausea & Vomiting	04	8.00%	06	12.00%
Iii	Constipation	03	6.00%	02	4.00%
2.	Pain at Site of injection	04	8.00%	05	10.00%

and diclofenac sodium in patients with postoperative pain after major surgical procedures. However in the past various other trials have been conducted for post-operative pain relief by different persons in the form of comparative studies including ketoprofen, diclofenac sodium or ketorolac with placebo[13] and ketoprofen with morphine[14] or single analgesic drug study of diclofenac sodium[15]. These agents can be administered by either intramuscular or intravenous routes for pain control. This study utilizes intramuscular use of both drugs for post-operative analgesia. Similar route has been used by Alam K and Takrouri MS for ketoprofen and pethidine in squint surgery16 and by Vathana P et al for ketoprofen and morphine in orthopaedic patients[14].

NSAIDS can be given in patients of various age groups with main preference after the age of 12 years. Therefore in this study patients selected ranged from 20-70 years of age. However ketoprofen and pethidine in squint surgery[16], and ketoprfen in adenoidectomy[17] has been used in children for postoperative pain control. The onset of analgesic effect in both NSAIDs ranged from 15-30 minutes. However ketoprofen has an edge over diclofenac sodium in its onset of action showing early response i.e 15 minutes in 80% of cases as compared to 70% of cases in diclofenac sodium, 20-30 minutes response was seen in 20% of patients with Ketoprofen where as in 30% of patients with d iclofenac sodium, which proves its delayed analgesic action as compared to ketoprofen. However Shahzad et al[15] in their study with diclofenac sodium found onset of action in 63.63% of cases within 15 minutes which is also comparable with our study. Duration of effect of NSAIDs vary from 8-12 hours. In this study ketoprofen revealed its effect for 12 hours in 90% of cases, where as diclofenac sodium in 80% of cases, which is quite low as compared to Ketoprofen. The study by Shahzad et al[15] shows effect of diclofenac sodium for 14 hours duration in majority of their patients. Need of Opioid decreases when NSAIDs are given on regular basis post-operatively as found in this study, where additional dose of Opioid was needed in 30% of cases with ketoprofen and 36% of cases with diclofenac sodium. However in the study of Tarkkila P, Saarvinaara L13 opioid requirement was 32% less with ketoprofen and 42% less with diclofenac sodium which is higher from our results.

CONCLUSION

We conclude that skillful use of analgesic drugs can provide incalculable relief from pain and decreases anxiety, misery, depression and desperation. NSAIDS are as effective as opioids in postoperative pain relief. They decrease use of opioids and thus decrease their major side effects like respiratory depression and gastro intestinal stasis. In our study ketoprofen is proved to be a more potent analgesic as compared to diclofenac sodium. We recommend ketoprofen after surgical procedures to relieve moderate to severe pain.

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TOPICAL QUINOLONES VERSUS TOPICAL AMINOGLYCOSIDES IN THE MEDICAL MANAGEMENT OF CHRONIC SUPPURATIVE OTITIS MEDIA; A COMPARATIVE TRIAL

ABDUL ALEEM KADAR, MUHAMAD USMAN, SOHAIL TIRMIZI

ABSTRACT

Objective: The objective of this clinical trial was to asses the efficacy of topical quinolones and compare it with the most commonly used aminoglycoside (gentamicin hydrocortisone) ear drops.

Patients and methods: One hundred and twenty patients were recruited in this comparative clinical trial and divided into two groups; aminoglycoside group of 60 patients were treated with gentamycin hydrocortisone ear drops and quinolone group of 60 patients were prescribed norfloxacin topical solution with a dose of 6 drops in the affected ear twice daily for two weeks.

Results: In the aminoglycoside group 30 patients had complete cessation of the discharge, in 12 discharge decreased in amount and mucoid in nature and 18 had no change in the amount and nature of discharge. In the quinolone group in 43 patients discharge stopped completely, in 12 discharge reduced and became mucoid whereas in 5 no change in the amount and nature of the discharge occurred.

Conclusion: We recommend that in the medical management of chronic suppurative otitis media, the topical quinolones should be considered first line of treatment as there are no ototoxic effects of quinolones, which can be used safely in the presence of tympanic membrane perforation.

KEY WORDS: Chronic Supprative otitis media, Topical therapy clinical trial.

INTRODUCTION

Active chronic suppurative otitis media (csom) is a common treatment problem in routine ENT practice. Its incidence has fallen in the developed world, however, in developing countries the CSOM and its squealae accounts for a major proportion of the clinical workload. Topical antibiotics have been extensively used in the medical management of CSOM, however, the choice was mainly confined to aminoglycosides only. In several recent clinical trials the use of topical quinolones has shown remarkable results in achieving dry ear[1-3]. The objective of this clinical trial is to asses the efficacy of topical quinolones sand compare it with the most commonly used aminoglycosides (gentamycin hydrocortisone) ear drops.

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MATERIAL AND METHOD

This trial was conducted on the patient presented with chronic ear discharge to the outpatient clinic of ENT department at Jinnah Postgraduate Medical Centre, Karachi. Irrespective of age, sex, race, ethnic origin and socio-economic background, 120 patients were recruited in this comparative clinical trial. The exclusion criteria were

1. patient with frank cholestaetoma, attic defect and marginal perforation

2. pregnant and lactating patients
3. patient with known sensitivity to aminoglycosides or quinolones
4. patient thought to be unreliable for follow-ups

A detailed history was taken and ENT examination was done in each patient. A swab for bacteriology was obtained before otoscopy. Each patient was instructed to do proper aural toilet and advised to put the ear drops in supine position with the affected ear facing the ceiling followed by tragal rub for 5 minutes
Were divided into two groups;

- Aminoglycoside group of 60 patients were treated with gentamycin hydrocortisone ear drops, 3 drops in the affected ear three times a day for 14 days
- Quinolone group of 60 patients were prescribed norfloxacin topical solution with a dose of 6 drops in the affected ear twice daily for two weeks and called for review on 14th day.

All the patients were followed in the outpatient clinic at weekly intervals for three weeks. At each follow-up visit patients were asked about cessation or reduction in the discharge. Otoscopic examination was performed in each case to assess objectively the result of our treatment. Any adverse effects of these drops were recorded.

RESULTS

This study of 120 patients presenting with ear discharge of six month to five years duration due to chronic suppurative otitis media were studied.

Majority of patients were between ages of 11 and 30 years. There were sample and 66 female patients. The nature of discharge at presentation is shown in table I.

Table II. shows the bacteria isolated in chronic suppurative otitis media. The most common isolated bacteria in these discharging ears was Pseudomonas aeruginosa.

Treatment outcome of both the groups on 14th day is shown in fig I. Subjective assessment was done by finding out the absence, reduction or no change in the discharge and objective assessment was done by otoscopy to check the presence and nature of discharge. In the aminoglycoside group in 30 patients complete cessation of the discharge occurred, white in the quinolone group 43 patients had their discharge stopped completely,

Local itching was common complaint in both the groups (3 in aminoglycoside group and 2 in the quinolone group) whereas Candida growth was seen in the aminoglycoside group only (4/60).

Figure 1 Treatment outcome of both the groups on 14th day

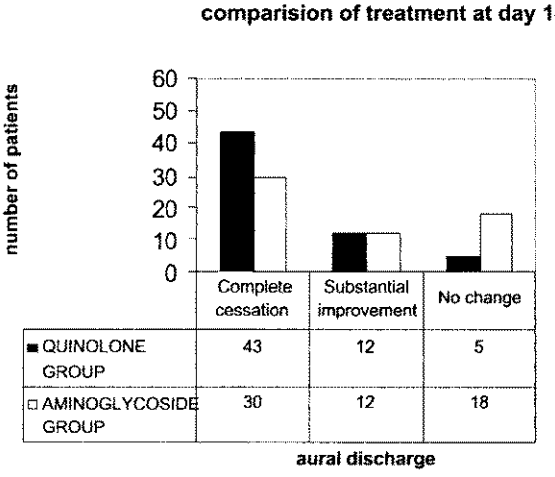

TABLE-I NATURE OF DISCHARGE AT PRESENTATION

Presentation	No of patient	Percentage
Mucopurulent	62/120	51.66%
Purulent	58/120	48.33%
Blood Stained	12/120	10%
Odorless	64/120	53.33%
Scanty	23/120	19.16%
Profuse	53/120	44.16

TABLE-II BACTERIAL ISOLATES.

Organism	No of patient n=120	Percentage
Pseudomonas. Aeruginosa	54	45%
Staph. Aureus	20	16.5%
Klebsiella	10	8%
Proteus Species	18	15%
E. Coli	6	5%
Serratia	10	8.5%
Enterobacter	2	1.5%

DISCUSSION

Chronic suppurative otitis media is a persistent and insidious disease that often leads to destructive changes and irreversible squeale[4]. Since the disease is very common and often overlooked, treated haphazardly and consequently complications occur. There is an intense need to have a modality of treatment, which is not only cheaper, easily administrable but also very effective in all age groups. This has given the instinct to conduct this study to compare the topical quinolones with topical aminoglycoside in the medical management of chronic suppurative otitis media.

Our study of one hundred and twenty patients of various age groups suffering from chronic suppurative otitis media

has shown the efficacy of topical aminoglycoside and topical quinolone. The most common pathogen found in our study was Pseudomonas aeruginosa (45%) A study carried out in Pakistan showed that the relative proportion of various bacteria is different in two major groups of CSOM namely tubo-tympanic and attico- antral. In 82 cases of attico-antral type of CSOM, Pseudomonas was present in 37 cases (45.3%), Proteus in 18 (12.2%), Staphylococci in 10 (12.1%), E.coli in three (3.6%), Klebsiella 36 (3.6%). On the other hand the commonest organisms in 68 cases of tubo-tympanic variety were Staphylococci in 28 patients (41.4%). The other strains isolated in this group was Pseudomonas in 21 cases (30.9%), Proteus in eight (11.8%), E.coli in five (7.4%) and Klebsiella in four (5.9%)[5].

In a multicentre study carried out in Karachi by Salam in 596 consecutive ear swabs specimens, Staph.Aureus was present in 40.4%, Pseudomonas in 29.6%, Aspergillus in 6.2% and Candida in 3.1%; 14.4% of swabs were culture negative[6]. In a study from Gomal University D. I. Khan, the causative organisms of CSOM were found to be Pseudomonas aeruginosa (37%), Staph. aureus (27%), Strep.pyogenes (18%), Proteus (15%) and E.coli (3%)[7].

Clinical studies over the last forty years have demonstrated the efficacy of antibiotic and antibiotic-steroid topical ear drops in the medical treatment of chronic suppurative otitis media. Before the advent of quinolones, aminoglycosides topical ear drops were considered to be the mainstay in the medical treatment of chronic suppurative otitis media. In fact, Supance and Bluestone[8] and Fairbanks[9] recommended the use of aminoglycosides steroid combination ear drops as first line management in active CSOM. Mendonca[10] reported success rate in 87 percent of the patients. Kilcoyne used a combination of gentamicin-hydrocortisone and reported success in 73 percent of patients with CSOM[11]. However, ototoxicity from topical solutions in the presence of a perforation has been in question for many years. Animal studies and human clinical reports that this risk is about 1 in 3000 ears[12-14]. The danger of potential ototoxicity in using aminoglycosides like gentamicin and neomycin necessitates a search for potentially safer alternatives. The potential of quinolones to be used as topical ear drops was realized by Todd et al[15]. Esposito et al applied generic topical ciprofloxacin with remarkable success in patients with active CSOM[1]. Several Japanese studies have reported the use of 0.3 % ofloxacin otic drops in children with purulent otitis media and otitis externa with a greater than 90% clinical response and a 93% bacterial eradication rate [2, 16-18].

In our current study we used norfloxacin, a fluoroquonolones in the quinolone group and gentamicin hydrocortisone drops in aminoglycoside group. Norfloxacin exert its bactericidal action by inhibiting the activity of DNA gyrase which is necessary for bacterial DNA replication and therefore resulting in inhibition of bacterial DNA synthesis and DNA damage, antagonism of protein synthesis and rapid bacterial death[19].

The results of our study clearly show superiority of quinolones over aminoglycoside as the complete cessation of discharge was noted in 71.66% The over all success rate was 92 percent in the quinolone group and 70 percent in the aminoglycoside group. This result is similar to other earlier studies done worldwide[15,16, 17, 18]. Fungal growth was noticed in 4 patients among the aminoglycoside group and we believe this due to the steroid component of the gentamicin hydrocortisone ear drops.

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ECTOPIC PREGNANCY: A LOCAL EXPERIENCE

NAZLI HOSSAIN, NARGIS SOOMRO, ANILA UMAR

ABSTRACT

An analysis of women who were identified clinically to have ectopic pregnancy was done at the Department of Obstetrics & Gynaecology, Unit 2, Dow Medical College & Civil Hospital Karachi. The study period was from January 2002 to January 2003, over a period of 12 months. The objective of the study was to identify the risk factors for ectopic pregnancy, and to see the correlation between clinical sign and symptoms and the final diagnosis. A total of 35 cases were managed in the unit during the study period. Palpable adnexal mass was the most common sign observed in 28 (80%) patients, followed by amenorrhea and abdominal pain which were observed in 24 (68%) cases. 80% of the patients gave no history of ontraception, a factor which has been found significant for tubal rupture. Left fallopian tube was the most common site of rupture, seen in 60% of patients. All the patients presented late with either confirmed ectopic pregnancy on ultrasound, or with sign and symptoms of hypovolemic shock, characteristic of tubal rupture.

KEY WORDS: Ectopic pregnancy, Tubal rupture, Risk factors.

INTRODUCTION

The incidence of ectopic pregnancy has increased considerably over the last two decades. In industrialized world, it constitutes about 2 % of all births[1]. The rise in incidence is attributed to certain well defined factors. These include past history of pelvic surgery, history of sexually transmitted diseases, multiple sexual partners, assisted conception, infertility and congenital or acquired tubal pathologies. Factors like cigarette smoking, vaginal douching, early age at first intercourse have also been found to increase the risk, though to a lesser extent[2].

Ectopic pregnancy commonly occurs in women with impaired tubal function. Salpingitis, leading to endothelial damage and subsequently deciliation is the common etiological factor. Patients presenting in emergency room in shock, due to tubal rupture has become a rare event in the developed world. Early ultrasound and serum beta HCG have revolutionized the management of ectopic pregnancy. Things have yet to change in our ircumstances. Tubal rupture along with the hemoperitoneum is still the commonest picture. This eventually translates into laparotomy, increased hospital stay, increased post operative consequences like adhesions, pelvic pain and fertility. Early diagnosis has the advantage of laparoscopy and medical treatment. Risk factors for tubal rupture have been identified and these include history of tubal damage, induction of ovulation, and high HCG level > 10, 000 m IU /ml and history of never using any contraception[3]. We present a study of patients managed in our unit DMC Civil Hospital, Karachi of ectopic pregnancy

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PATIENTS AND METHODS

All patients admitted with suspicion of ectopic pregnancy during January 2002 to January 2003, over a period of 12 months, to the Department of Obstetrics & Gynaecolgy Unit 2 Dow Medical College & Civil Hospital Karachi were included into the study. A clinical diagnosis of ectopic pregnancy was made in patients who presented with amenorrhea , abdominal pain, irregular vaginal bleeding, hypovolemic shock. Ultrasound was done for conformation. Serum HCG facility was not available for all patients.

RESULTS

Total number of patients in this study was 35.The majority of patients, 48 % (n-17) were in age group between 25 and 29 years . Fifteen (3 %) patients had history of infertility of more than five years. The longer the duration of infertility, stronger is the association with ectopic pregnancy. Maximum number of cases presented in the month of August (25%).Table I shows the use of different contraceptive methods among patients. Majority of women had never used any contraception (80 %). Table II shows the sign and symptoms. A palpable adnexal mass was the commonest sign which was observed in our patients (80 %), this was followed by the symptoms of amenorrhea with lower abdominal pain of varying intensity(68%). The sign of cervical excitation was not observed in all patients. In majority of cases left fallopian tube was involved (60%).

TABLE-I HISTORY OF CONTRACEPTION N=35

	Percentage
Oral pills	2 (5.7%)
Injectable progesterone	1 (2.8%)
Intra uterine device	2 (5.7%)
Tubal ligation	2 (5.7%)
Never used contraception	28 (80%)

TABLE-II SIGN AND SYMPTOMS N=35

	Percentage
Amenorrhea with abdominal pain	24 (68%)
Amenorrhea with irregular bleeding	11 (31%)
Hypovolemic shock	16 (45%)
Cervical excitation	16 (45%)
Palpable adnexal mass	28 (80%)

DISCUSSION:

Ectopic pregnancy is a life threatening condition, and accounts for 9% to 13% of all pregnancy related deaths during the first trimester[4-5]. Rupture of the fallopian tube leads to massive intra- abdominal hemorrhage, which if untreated , may result in maternal death. Even when the diagnosis and treatment is made at an early stage, some tubal damage do occur, and is manifested as poor future reproductive outcome. The risk of subsequent ectopic pregnancy is estimated as high as 27%[2]. Ectopic pregnancies are usually diagnosed between 5 to 12 weeks of gestation. The diagnosis is made on history, clinical features and use of diagnostic modalities like hormonal assays, ultrasound and laparoscopy. Amenorrhea, abdominalpain and irregular vaginal bleeding are the classical early symptoms of ectopic pregnancy. The differential diagnosis of threatened abortion, inevitable abortion, urinary tract infection, appendicitis should always be kept in mind. Signs of peritoneal irritation points towards tubal rupture. The most efficient way of ruling out ectopic pregnancy is to confirm an intrauterine pregnancy. The best way to confirm an intrauterine pregnancy is by real time ultrasonography. The sensitivity and specificity of this modality is 100%, in gestation greater than 5.5 weeks[2] . Serial HCG levels, progesterone and ultrasound have been combined into different diagnostic algorithm . Serum beta HCG, along wit trans-vaginal ultrasonography is the commonest diagnostic modality used. A serum HCG greater than 1500 IU/L , along with an empty uterus has been found 100% accurate for the diagnosis of ectopic pregnancy[6]. The use of other hormones like serum progesterone, creatinine kinase, cervical fibronectin , vascular endothelial growth factor have also been evaluated for diagnostic purposes[3]. The incidence of ruptured tubal pregnancy has fallen in developed world[7]. This is usually due to earlier diagnosis of ectopic gestation, followed by medical treatment. This picture is different from what we see in our usual day to day practice. We report here 35 cases of ruptured tubal pregnancy. These patients were seen in the emergency room, with the typical sign and symptoms of ectopic pregnancy. History, clinical features and ultrasound findings were the key factors which were taken into account before proceeding to laparotomy. At times, ultrasound was not available and presence of amenorrhea, acute abdominal pain and hypovolemic shock were the only factors which were taken into account for operation. Salpingectomy was the most common procedure performed .

The role of medical therapy has been well defined in ectopic pregnancy. The best candidates for medical treatment are women with asymptomatic ectopic pregnancy, serum HCG level < 5000 IU/ml, tubal size of less than 3 cm, and no fetal cardiac activity. Single dose methotrexate injection is the most widely studied medical treatment , with success rate in the range of 86%-94%[4]. Follow up of these patients include weekly HCG levels, until it falls to below < 5 IU/ml, serial pelvic examinations and ultrasound .Persistent ectopic pregnancy and acute abdominal pain are the complications of medical treatment. Early diagnosis has the advantage of laparoscopic management , with less duration of hospital stay, less pelvic adhesions, and decreased amount of blood loss. Various procedures like linear salpingostomy, salpingectomy, fimbrial expression can be done via the laparoscopy. Persistent ectopic pregnancy is the most

common complication observed in laparoscopic procedures[2]. The role of medical and laparoscopic management have been well defined. In our set up , the delay in seeking medical advice by the patients results in greater morbidity. Though , there were no maternal deaths in our series of patients, but the finding of tubal rupture at laparotomy itself signifies the gravity of situation.

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TUBERCULOUS OSTEOMYELITIS

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ABSTRACT

Skeletal tuberculosis is known as an osteoarticular disease. It is rare to find a bony involvement sparing the joint. We treated 16 cases between 1991 to 2001. All patients had symptoms varying from 02 to 09 months. Six out of 14 were treated elsewhere as cases of pyogenic osteomyelitis by incision and drainage with non-healing wounds. Diagnosis in early stages is difficult. Conventional radiography may be deceptive in early stages and CT or MRI may be required in the diagnosis of difficult cases. Biopsy is mandatory to confirm the diagnosis. This should be done in form of judicious curettage of the affected tissue, which not only confirms the diagnosis but also aids in early healing due to the evacuation of the necrotic tissue.

KEY WORDS: : Tuberculosis, Osteomyelitis,

INTRODUCTION

Tuberculosis is an ancient disease that has been found even in Egyptian Mummies and also recognized in the Grico Roman civilization in various forms. In spite of all recent advances in diagnosis and therapy the disease remains a major unsolved international problem[1].

The disease is almost always osteoarticular but isolated involvement of bones is rare. Tuberculous osteomyelitis is well documented in classical studies. Its incidence was high during the wild tuberculous era. Sorrel-Dejerine in 1932 reported 649 cases in a series of 4660 children whereas they reported 40 cases out of 1918 adults during the same period[2].

Since the advent of chemotherapy in the management of tuberculous infection, the bony lesion has become rare and is more or less forgotten by many of us; only a few isolated cases have been reported in the recent past 2-12. We have reviewed our experience of these cases in the hope of stimulating a high index of suspicion in early diagnosis.

PATIENTS AND METHODS:

All patients with suspicion of tuberculous osteomyelitis were subjected to following investigations. Blood complete picture. ESR and x-ray of involved site. Curettage of lesion with discharging sinus was done according to the presentation. All specimens were send for histopathological examination. All were given four antituberculous drugs Follow up was done in outpatient clinic.

RESULT:

During the period 1991 to 2001 we treated 16 patients of tuberculous osteomyelitis, out of which two have been lost in follow up. Out of the 14 patients, 9 were females and 5 males. The average age was 21 years (Range 3 to 45). Six had lesion in the upper limb, six in the lower limb one in the pelvic girdle and one in the right zygoma. The affected sites are shown in table I.

Pain and swelling were the most common symptoms ranging from two to ten months. Low grade fever, loss of appetite and weight loss were common to all with moderate enlargement of inguinal nodes in all cases with lower limb and girdle infections. ESR was high in all cases ranging from 60 to 160 mm in the first hour. In all cases enzyme linked immunosorbant assay was positive. Seven had sinuses following surgical drainage of abscess elsewhere. The sites were greater trochanter femur, mid shift tibia, terminal phalanx right index finger, proximal phalanx middle finger, base of the fifth metacarpal bone. olecranon and the iliac bone.

All patients had plain radiograph both in the

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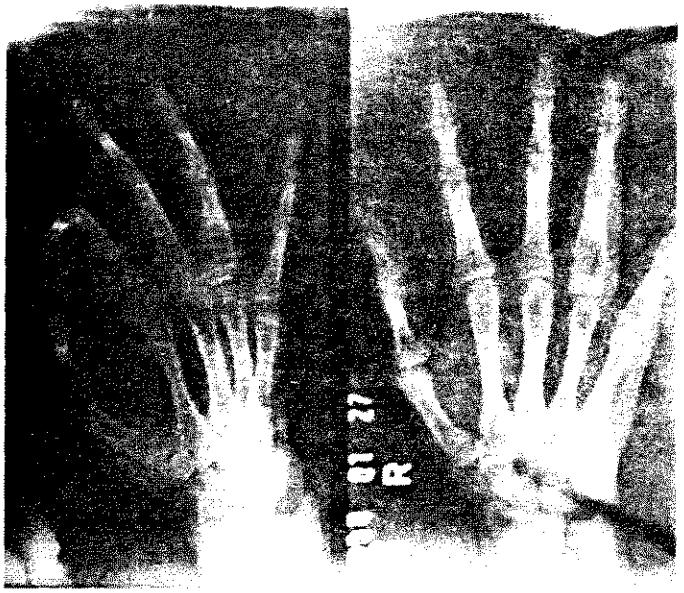
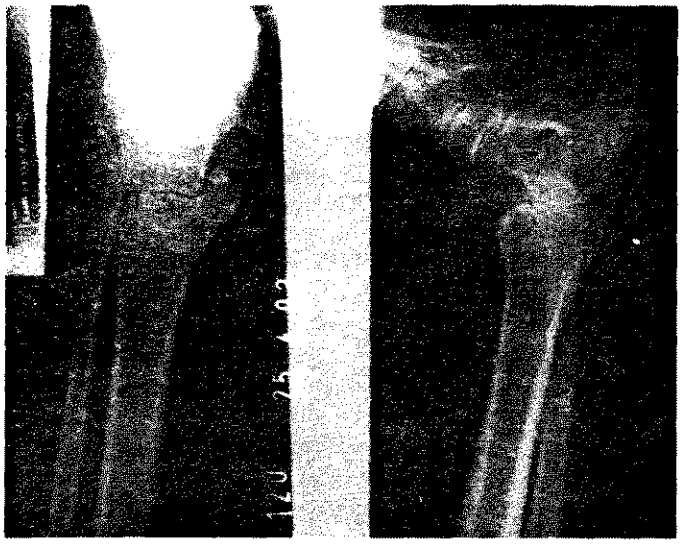
TABLE-I **DISTRIBUTION OF LESIONS**

UPPER LIMB: Thumb (Proximal phalanx)

LOWER LIMB: *Calcaneum*



UPPER LIMB: Ring Finger (Proximal phalanx)



LOWER LIMB: *Tibia lower third*

UPPER LIMB: Ulna (Olecranon)

LOWER LIMB: *Femur Greater trochanter*

anteroposterior and lateral views showing typical lytic areas. In all cases diagnosis was confirmed on histological examination of tissues curetted. All cases were treated by surgical curettage, which showed typical tuberculous caseous necrosis.

Antituberculous drugs given were streptomycin, rifampicin, isoniazid, pyrazinamide and ethambutol. All drugs were started simultaneously with ocular and liver function monitoring. Streptomycin was stopped after 30 to 45 days, ethambutol after 3 months and rest of the three drugs regimen for 12 months, with monthly recording of ESR and x-ray reviewed every three months. We did not find any drug resistance, any recurrence, or any other untoward reaction. Mean follow up was of 5 years (range 2-10 years).

DISCUSSION:

The aim of this paper is to keep us abreast of the epidemiological data As documented earlier, pathophysiology of the bony lesion can start anywhere in any bone with bony necrosis, caseation and formation of cold abscess which may or may not form a sinus[20]. Because of the absence of connection between osseous arteries, thrombosis arising from the disease process may lead to sequestration of the whole diaphysis causing bony deformities or even shortening and limb length discrepancies. The infected and necrosed diaphysis is surrounded by newly formed subperiosteal bone like chronic hematogenous osteomyelitis and if rigorous histology and antimicrobial tests performed quite a number of them will turn out to be tuberculous [2, 21, 22]. The bony involvement sparing the joint occurs in ribs, metacarpals, metatarsals, calcaneum, femur, tibia, fibula, radius, humerus, sternum, facial bones, pelvis and skull[21, 22].

They are reported to be 2-3% of all cases of osteoarticular tuberculosis. 7% of these cases may have involvement of more than one site. In our series only one had more than one bone involvement. 33 cases of tuberculous osteomyelitis of long bones were reported during 1965-1967. which represented 3% of all bony lesions and the location in descending order of frequency were tibia-11, ulna-8, radius-6, femur-5 and fibula-2[21,22].

Diagnosis at an early stage is by far the most important part of management which is very often missed in our part of the world because of rarity of bony involvement and absence of an osteoarticular process, secondly the radiological picture of chronic pyogenic osteomyelitis is the same and is equally difficult to differentiate the two conditions.19 One of the following is usually present.

1. The classical spina ventosa appears as an expansion and thickness of cortex.
2. The commonest radiological finding is a geode like cavity of variable size delineated by thin zone of sclerosis.
3. Occasionally the cavity contains sequestrum of necrotic spongiosa, well described by French authors as an "Image en grelot" (grelot, little spherical bell).
4. The radiological appearance of the cavity varies from thick reactive sclerosis, intense periosteal reaction and even sequestrum mimicking chronic hematogenous osteomyelitis. In difficult situation tomograms, CT scans, MRI and newer imaging techniques will be of much help[18].

Histology is mandatory to confirm diagnosis for which excision biopsy should be preferred. This not only confirms the diagnosis but also helps in removal of all necrotic caseous material, thus helping an early healing[11-16]. Direct smear and culture are not sensitive and helpful in arriving at a diagnosis as evidenced by 75% of the positive smears of bone and joint origin have only 1-9 AFB per 100 fields. In contrast only 20% of the positive smears in pulmonary tuberculosis had 1-9 AFB per field. The result of culture of bone and joints origin had fewer than 100 colonies per tube, whereas 70% of positive cultures of lung origin had more than 100 colonies per tube[2].

The knowledge about the exact effect of the modern drugs on osteoarticular tuberculosis and the organ response to infection is still inadequate. Certain facts, which are clear, are that the osseous lesions are relatively more resistant than the synovial lesions and with prolonged antituberculous therapy histological appearances loose their characteristic forms[13]. In the typical tubercle the epitheloid cells become less compact and soon the tubercle gets unrecognizable because the epitheloid cells and lymphocytes get widely scattered. The central caseous area gets smaller or even gets absorbed with prevalence of fibrosis. Most of the sinuses, ulcers, large cavitations, ischemic tissue and infected bone get healed quite often without surgical intervention.

In the western countries up to 1959 nearly half the surgical cases in general hospital were then suffering from "surgical tuberculosis". The incidence declined up to 1985 and it was considered to be a disappearing disease. In Asian and African countries the disease continued in epidemic proportions. After 1985 due to emergence of AIDS there has been a reversal and 10-30% increase has been reported. The most alarming feature is that the infection is with atypical bacilli most of which show resistance to large number of antituberculous drugs, the change is due to dysfunction of host immune system, some get primary tuberculosis, others reactivation of previous tuberculous infection and concomitant infection by strains other than the previous strains from exogenous groups. The incidence of tuberculosis in patients with AIDS is almost 500 times that of the incidence in the general population[17]. Patients with HIV and tuberculosis are a potential source of spread of drug resistant strains of tuberculosis bacilli. A systemic follow up study of these cases is essential. There has been reports from Sub Sehara Africa that 60% of tuberculous patients are with H.I.V. In these cases adverse reactions are common and surgery carries a high risk of infection[17].

To conclude we have to be vigil on the bizarre types of infection and result responses.

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ABDOMINAL TUBERCULOSIS "SURGEONS" PERSPECTIVE

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ABSTRACT

Objectives: The aim was to analyze the clinical presentation and outcome of therapeutic procedures in abdominal tuberculosis.

Design: Descriptive study.

Place and Duration: Surgical Unit III, Department of Surgery, Jinnah Postgraduate Medical Centre Karachi, of 4 years.

Subjects and methods: All admitted patients (83) with following criteria were included.

A. *Clinically suspected abdominal tuberculosis supported by investigation and later responding to anti tuberculous drugs.*
B. *Gross morphological operative findings; and histologically proven caseating chronic granulomatous inflammation.*

Results: Median follow up was 9 months. Young females of low-income group were the common sufferers. Abdominal pain, intestinal obstruction and peritonitis were common presentations. Surgical interventions like loop ileostomy, resection anastomosis and adhenolysis were done in 53% due to peritonitis or intestinal obstruction.47% patients responded adequately to anti tubercular therapy. In 20%, procedural complications were seen.

Conclusion: Diagnosis of abdominal tuberculosis can be made on clinical grounds complications of abdominal tuberculosis can be averted with early commencement of drug therapy. Ileostomy is life saving procedure in malnourished patients. Leaving wound open for delayed primary closure not only allows continuous inspection of parties but also helps easy drainage of abscess if pus accumulates subsequent to surgical intervention or overlooked perforation.

KEY WORDS: Abdominal tuberculosis, Peritonitis, Ileostomy, Intestinal obstruction.

INTRODUCTION

Diagnosis of extra pulmonary tuberculosis is often difficult[1,2,3]. because of spectrum of clinical presentation and non-availability of sensitive tests. Investigation like Mantoux test and ascitic fluid culture do not readily reveal this disease[4,5]. However in most cases diagnosis is reasonably accurate by the process of exclusion[6]. Absence of evidence in the form of confirmatory test does not necessarily mean the absence of abdominal tuberculosis, this behooves upon the clinician to be more vigilant and adopt objective course in the assessment of these patients. In our part of the world tuberculosis is the common chronic inflammatory disorder afflicting the abdominal organs surpassing the Crohn's disease[7]. A descriptive study was carried out in JPMC Surgical Unit III from January 1997 to December 2000 in order to ascertain the mode of clinical presentation of abdominal tuberculosis, accuracy of diagnosis and to evaluate the outcome of the procedures undertaken in emergency or elective situations with role of open wounds in presence of ileostomy.

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PATIENTS AND METHODS:

The hospital record of consecutive patients with clinical and pathological diagnosis of abdominal tuberculosis treated in Surgical Unit III, from February 1997 to December 2000 was reviewed. Those patients who were diagnosed as having abdominal tuberculosis on clinical data only (ileocaecal hypertrophic variety) but later diagnosed as carcinoma or other lesion and also those patients who were in the advanced diseased state and those who expired without surgical intervention were excluded.

Patients initially considered as carcinoma and latter proved to be tuberculosis on evidence (histopathological, operative findings) were included in the study. Age ranged from thirteen to eighty years. The male to female ratio was 1:1.4, mostly in second and third decade.

Of total eighty-three, 44(53%) patients' clinical conditions warranted exploratory laparotomy in emergency after initial resuscitation and baseline investigations. Clinical presentation of peritonitis and manifestation of free gas were seen in majority of cases. All had intestinal perforation including jejunum, single or multiple with one or two distal stenosing strictures few feet proximal to ileocaecal junction. Stricture in the ileum was resected margins of the perforations and the mesenteric lymph nodes if enlarged were sampled and preserved for histopathological examination (table I).

In patients where minimal contamination was found with no distal obstruction, primary closure of the perforation was undertaken. In two (9.5%) patients the appendix was perforated where appendicectomy was done and on histopathological report diagnosis of tuberculosis was made. Ileostomy was done in patients with wide spread peritoneal contamination, multiple perforations and distal narrowing. The wounds were left open for delayed primary closure[8]. The open wounds allowed easy inspection of parities and drainage of pus in the cases of abscess formation subsequent to leakage or other complications of the procedure (Fig.1)

Figure 1: Patient with open wound and ileostomy

TABLE-I

Opera tire finding in patients with clinical manifestation of peritonitis inteshnol obstruction

Peritonitis	21	(%)
Multiple ileal perforation	9	(42.8%)
Single ileal perforation	5	(23.8%)
Jejunal perforation	3	(14.2%)
Perforated appendix	2	(9.5%)
Yellow turbid fluid with multiple tubercles	1	(4.7%)
Jejuno ileal and colonic perforation	1	(4.7%)
Lntestinal obstruction	**21**	**(%)**
Ileocaecal mass	7	(30.4%)
Multiple strictures	7	(30.4%)
Multiple adhesions	6	(26%)
Frozen abdominal contents	2	(8.6%)
Rectal stricture	1	(4.3%)

Clinical characteristics of patients observed under symptomatic and empirical antitubercular therapy

Patients On Empirical Therapy	39	(%)
Abdominal mass (other then Ileocaecal region)	13	(33.3%)
Abdominal pain with no other feature of obstruction	12	(30.7%)
Pain with features of obstruction	11	(28.2%)
Distention due to Ascitic fluid	03	(7.6%)

TABLE-II SURGICAL PROCEDURES

Total Patients	44	(53%)
Ileostomy	20	(45.4%)
Hemicolectomy,	07	(15.9%)
Adhenolysis	06	(13.6%)
Stricturoplasty	03	(6.8%)
Laparotomy & biopsy	03	(6.8%)
Appendectomy	02	(4.5%)
Primary closure	02	(4.5%)
Rectal Dilatation	01	(2.2%)

In 23(52.2%) patients surgery was performed due to the clinical presentation as acute or acute on chronic intestinal obstruction either at the time of admission, or as non-responders to empirical chemotherapy. Decision regarding surgery was taken at the most within 6 days. Mass in ileocaecal region, multiple strictures of ileum,

adhesions, and fibrous bands on serosal surface and parities were causing the intestinal obstruction. Multiple small dirty white gray tubercles were noticed in few cases. Suitable surgical procedures were decided as per operative findings and surgeon's perception of the possible outcome. (Table-II). 3/23 (13%) patients underwent adhenolysis through laparoscopic technique. Iatrogenic perforation occurred in one patient in whom laparotomy was performed. In other 3/23(13%) patients laparotomy was undertaken for lysis of thick multiple membranous adhesions and fibrous bands. In 2(8.6%) patients with frozen abdomen multiple biopsies were taken from the omentum studded with tubercles. One patient presented with intestinal obstruction due to rectal stricture. He responded to dilatation, proctoscopy and rectal biopsy and antitubercular therapy. Clinically we suspected carcinoma rectum but histopathologist reported as chronic granulomatous lesion compatible with tuberculosis. In immediate post-operative period antibiotics like first generation cephalosporin, with streptomycin 15mg/kg were started parenterally. As soon as patients started moving bowels other orally available antituberculous drugs were given, namely, rifampicin, isoniazid. Ethambutol. pyrazinamide .

Patients progress was monitered, wounds were dressed and examined daily. As soon as patient's condition stabilized the doctor or the nurse explained stoma care to them with demonstration of application of wafers and collection bags. Patients were sent homes after closure of abdominal wounds once the healing was established and granulation tissue formed adequately. They were followed in the out patient department for complications related to ileostomy, wound or drugs. The ileostomy closure in these patients was done within six months of 1st operation which remained uneventful.

RESULTS:

Most of the patients were in second & third decade of life. 4.5% patients had history of having completed the treatment of pulmonary tuberculosis. Almost all the patients reporting were from families with monthly income less than Rs.2000, Young female patients were 70%of total. Intestinal obstruction was the commonest indication for surgery. Limited hemicolectomy in ileoceacal mass and local resection anastomosis was done in the stenozing strictures Peritonitis was the second common indication for surgery. Ileostomy and the closure of the perforation only in selected patients yielded good results. 39(46.9%) patient were observed and kept on emperical therapy, Out of these 3 (7.6%) had abdominal distention due to enormous ascites which responded well to the repeated aspiration and emperical therapy. In 13(33%) patient a mass was found in the upper abdomen Investigations suggested inflammatory mass arising from greater omentum. In 12(30.7%). patients episodic colicky abdominal pain of long duration was the only presentation with normal radiology. Hematology suggested a chronic inflammatory condition. 11(28.2%) patients had abdominal pain with recurring bouts of vomiting and abdominal distention but responded to oral restriction and intravenous fluids. Laparotomy and only biopsy was possible in 3 patients where whole abdominal contents were seen as amalgated mass studded with gray white tubercles. Patients' clinical condition deteriorated despite anti tubercular therapy and parenteral nutrition. Patients hospital stay for more than 15 days was 26.1%, Re-exploratory laparotomy was required in 2/23(8.6%) due to abdominal abscess and anastomotic leak.

Complications related to ileostomy like prolapse, retraction, stenosis, poor stoma site locations were also noticed in 5/23(21.7%) patients. Most of the wounds healed with delayed primary closure with third intention without any complication.

DISCUSSION:

Tuberculosis is common chronic inflammatory disease in the developing countries. The abdominal form of tuberculosis is the second commonest extra pulmonary form of the disease according to a study conducted Shehzad et al[13]. The pathogenesis of involvement of abdominal contents and coverings by mycobacterium tuberculosis has not been fully explained. However poor nutritional status with low socio-economic order, lack of health facilities and poor pasteurization of milk have been considered to contribute greatly to this problem[14-15]. Ayaz et al have claimed that disease is affecting the affluent patients as well. About 12% patients in this study belonged to well to do people whereas rest were from poor socio economic group[16].

In our study,most of the patients clinical conditions demanded surgical intervention 44(53%), majority of these patients had intestinal obstruction (52.2%) as reported by other authors in their studies[10]. The disease is seen to affect young people between second and third decade of life with female preponderance. The high incidence of disease in females has been suggested in many studies[2,14,16]. Abdominal pain of varying intensity was the commonest presentation in our patients and has been recorded by other authors[16,20]. Single or multiple strictures of ileum were seen as the most common cause of intestinal obstruction (19,21) followed by ileocaecal mass and adhesions.6/23 (26%). Adhesions were seen involving ileum and jejunum with parietal peritoneum. Laparoscopic examination and adhenolysis with laparoscope was successfully achieved in 3 patients. Laparoscope has been used both a diagnostic and therapeutic tool in abdominal tuberculosis. 21/44(47.7%)

patients presented with peritonitis. The cause was single or multiple perforations in the small intestine, the ileum (47.7%) being the commonest site of disease in the abdomen as has also been reported by other authors[3,14]. The disease does not seem to spare colon, appendix or even rectum[13,22,23].

In patients with peritonitis, we performed ileostomy in 22/44 (50%) patients. The procedure was tolerated very well by most of the patients with few complications related to ileostomy Though Farnaz and Chaudhry have also recommended this procedure in their study but reported enterocutaneous fistula in 21% of their patients (3,19). wound infection in 68% and burst abdomen in 15% has also been reported .

We left abdominal wound open for inspection, frequent dressings and drainage of pus. All wounds initially developed infection but progressively got better granulations and became suitable for secondary closure and healing by third intention[8]. Ileostomy complications were not life threatening and were managed easily compared to the costly management of enterocutaneous fistulas with total parenteral nutrition or revised surgery in already moribund patients [3,12,16].

In 7/23 (15.9%) patients where hemicolectomy and ileocolic anastomosis were done the anastomosis leak and abscess formation occurred, later responded well to aspiration under ultrasound guidance with parenteral nutritional support. We consider the anastomosis leak due to poor preparation of gut secondary to total or near total occlusion of the ileocaecal region and generalized nutritional debility of the patient affecting the healing process. In 07(30.3%) patients stricture were found, 03/23(13%). stricturoplasties were done and in 04 patients local resection and anastomosis was done, depending on the degree of occlusion caused by the strictures. 03 patients (3.6%) developed anastomotic leakage leading to abscess formation and 03/44(3.6%) developed enterocutaneous fistula. Despite peritoneal contamination was not noticed in these patients high percentage of complication may be due to the advanced nutritional debility [24]. Aspiration of the abscess was done under ultrasound guidance and enterocutaneous fistula was treated expectantly with total parenteral nutrition.

Some authors recommend laparoscopy as diagnostic tool in the ascitic form of abdominal tuberculosis. Despite employing sounding test and open laparoscopy the injury to gut was due to intimate adherence to visceral peritoneum and the abdominal wall, however visually guided trocar and on table ultrasound guided insertion can prevent the injury to intestine. One patient who developed hepato toxic jaundice, anti tuberculosis therapy was discontinued and restarted after symptoms subsided. In the event of this complication some authors have recommended ciprofloxacin with streptomycin[3].

Three (3.6%) deaths in this study swere due to considerable advanced disease involving the whole abdomen with no discrete part of intestine recognizable. In these patients minimal manipulation was done, One patient died in 1st 24 hours of operation, one patient developed high grade fever and sudden circulatory collapse, presumbly due to pulmonary embolism and expired with in 1st week of surgery.

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PERINEAL PAIN AFTER VAGINAL DELIVERY

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ABSTRACT

The objective of this study was to assess pain morbidity after vaginal delivery and effect of episiotomy on it. Fifty women delivering vaginally at Liaquat University Hospital and Aga Khan Maternal & Child Care Center, Hyderabad were followed through a pre-developed questionnaire at 24-48 hours after delivery, 10th post partum day and 10th post partum week for assessment of pain

All women with episiotomy (n-25) required oral analgesia following delivery, 2 required parenteral analgesia for 24 hours compared to no analgesia for perineal pain in control group. At day 10, 4 (16%) among episiotomy group had inflamed and gaping wound requiring local treatment and removal of stitches. Two (8%) required admission for restitching Dyspareunia was more common among episiotomy group, Two required medical / surgical intervention for it.

Cionclusion: Episiotomy adversely affect the pain morbidity after vaginal delivery.

KEY WORDS: Episiotomy, Pain morbidity

INTRODUCTION

Perineal pain during early peurperium is one of the most common causes of maternal morbidity affecting functions and experience of early motherhood[1]. Episiotomy was adopted by most of American & British hospitals as a routine procedure with a rising rate till 1928, when increased morbidity became evident[2] and its routine use was condemned[3]. Episiotomy is still used as a routine procedure in our hospitals because of lack of realization or lack of quantification of increased morbidity related to this procedure. Present cohort study is designed to assess the morbidity of episiotomy with regard to requirement of analgesia, perineal health and dyspareunia and to compare it with control group.

PATIENT AND METHODS:

Fifty women delivering vaginally at LUMHS & AKMCC were assessed by completing questionnaires at 24 to 48 hours after delivery, at 10 days post partum and at 10 weeks post partum. Post partum perineal pain, need for analgesia. perineal healing, removal of stitches, dyspareunia were assessed.

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RESULTS:

Out of 23 primigravid women 18 received episiotomy, where as 07 multi gravida had episiotomy Indications are shown in Table – I. Analgesic requirement was 100% in episiotomy group where as non-episiotomy group did not require analgesia for perineal pain during first 24-48 hours. Two of the parturients required parenteral analgesia because of severe perineal pain. At the 10th day of follow up, non-episiotomy group showed no problem and small perineal tears were well healed. In episiotomy group 20 (80%) showed good healing Wound was infected and opened in 2 (8%) stitch material was hanging out in other 4 (16%) women. Perineal pain and discomfort was present in 14 (56%) women.

At 10th week post natal check up, 6 (24%) women complained of persistent perineal pain and one parturient had post coital bleeding and pain because of granulation

tissue formed at the stitch line requiring cautry. At 10th week post partum, most of the women have resumed coitus without complaints except 2 from episiotomy group who had dyspareunia severe enough to use local anaesthetic ointments. One woman developed endometriotic cyst in wound line requiring surgical removal (Table – II).

TABLE-I INDICATIONS FOR EPISIOTOMY

Indication	No
Primipara	18
V B A C	04
Assisted Delivery	03

TABLE-II POSTNATAL EXAM NATION FINDINGS AT 10TH POSTPARTUM DAY

Findings	No.	%
Infected Open Wound	03	8%
Inflamed gapping wound	01	4%
Good Healing	20	80%
Analgesic Requirement	05	20%
Re-stitching required	02	8%

DISCUSSION

Perineal trauma is a common sequel of childbirth. For Primiparous, rate of perineal trauma (either caused spontaneously or due to an episiotomy) has been found between 83 and 95%[4]. Perineal pain during early puerperium is one of most common causes of maternal morbidity[5] irrespective of mode of delivery or extent of perineal trauma. However, the degree of perineal trauma, use of episiotomy, type of repair[6], type of suture[7-9] material used and the type of delivery[10-11], directed pushing[12], position of woman during labours[13] and epidural use[14] may all affect the severity of perineal pain, experienced. Episiotomy is the commonly performed obstetrical operation, since its introduction in 1741 without much of convincing evidence for its proposed benefits[15]. Perineal pain can be a sequelae of episiotomy repair and is described as worst than the pain of childbirth. It is not only distressing for the women but affects her ability as mother and also affects relationship with husband at an important time when family dynamics is altering. Analgesia used for perineal pain ranges from local anaesthetic, oral and parenteral analgesics to therapeutic ultra sound[16-17].

After vaginal delivery it takes 1 month to achieve perineal comfort and 3 months to achieve pain free sexual inter course. Some 20% of women may require more time ranging from 3 to 6 months. In light of this small observational study and critical review of literature[18-19] we recommend restrictive use of episiotomy in our hospitals and protocols for that should be followed. This will not only favour maternal perineal health but will also reduce the cost of hospital delivery and may increase attendance which can be a step forward to safe motherhood goals.

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PROSTATIC RHABDOMYOSARCOMA IN AN INFANT WITH NEUROFIBROMATOSIS

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ABSTRACT

we are reporting an unusual case of a tumor in early infancy causing complete urinary obstruction.
The patient was an infant with external signs of neurofibromatosis who presented with acute urinary retention prostatic rhabdomyosarcoma and was managed by total cystectomy and urinary diversion.

KEY WORDS: Prostatic rhabdomyosarcoma Neurofibromatosis.

INTRODUCTION

Rhabdomyosarcoma is a malignant mesenchymal tumor of skeletal muscle derivation. Interestingly it arises in sites lacking striated muscles. It represents 5% to 10% of malignant solid tumors of childhood, ranking 4th in frequency after CNS neoplasms, Neuroblastomas and Wilm's Tumor[1]. Most cases of rhabdomyosarcoma occur sporadically a small proportion is associated with genetic aberrations, including Neurofibromatosis Type I[2].

It has a peak incidence before the age of five years, and a second surge during early adolescence. Botryoid RMS is a subtype of the embryonal variety, which ordinarily extends into body cavities such as bladder, nasopharynx, vagina, or bile duct[1]. it is extremely rare to see in neonatal period.

CASE REPORT:

A 6 months old baby presented with difficulty in micturition for 6 days. One day prior to admission he had urinary retention and on examination bladder was palpable, so he was catheterized at that time. There were multiple variable size café-au-lait spots on his body. Ultrasound showed bilateral hydronephrosis, distended urinary bladder with thick irregular walls and an irregular vesical growth with maximum transverse thickness of I cm, arising from the

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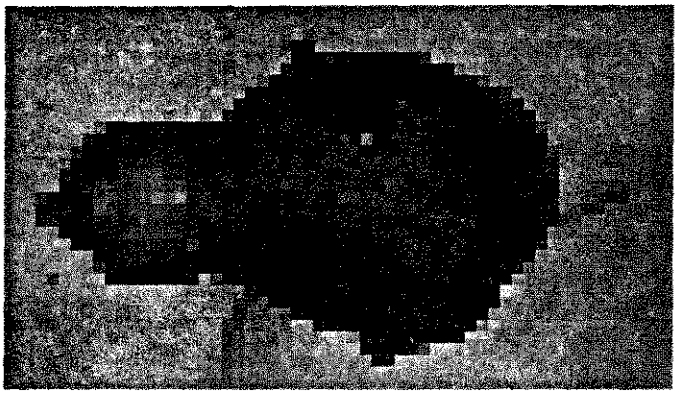

Fig.1. Specimen of total cystectomy. Beyond prostatic tumor proximal urethra is also full of permeated tumor.

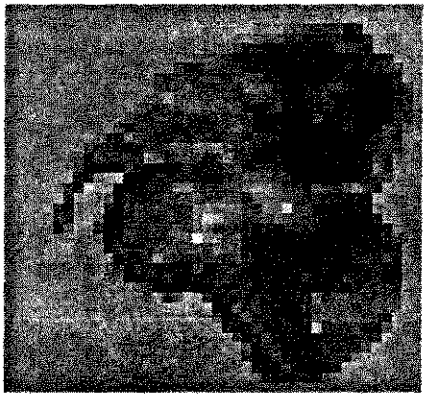

Fig: 2. Specimen in Fig 1 has been laid open. Extensive solid tumor replacing the entire prostate and proximal urethra and invading the lower half of the bladder

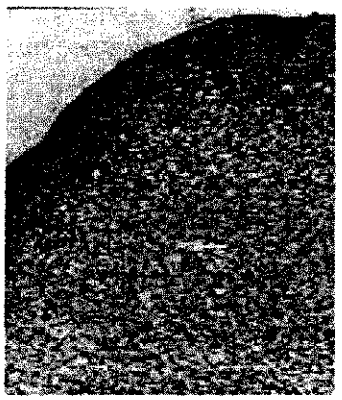

FIG 3: The microscopy shows a small blue cell tumor. It's showing cambium layer just below the lining membrane.

Fig 4: The high power view shows Rhabdoid cell with a large nucleus and abundant pinkish cytoplasm, typical features of rhabdomyosarcoma

anteroinferior wall of the urinary bladder. No extra-vesical extension was noted. His urea was 25 mg/dl and creatinine 0.6 mg/dl. Other lab investigations were within normal range. Surgery was planned through a midline incision. Bladder wall was thickened and hypertrophied because of distal obstruction. Total cystectomy and ureterosigmoidostomy was performed (Fig 1). Big tumor about the size of a plum arising from the prostatic urethra protruding as a fungating growth into the bladder lumen was identified (Fig 2). Clinically the appearance was that of the prostatic rhabdomyosarcoma.

The histopathology of the growth revealed a small blue cell tumor composed of small and spindle shape cells. Some of them had acidophilic cytoplasm. There were highly cellular areas. A dense zone of undifferentiated tumor cells immediately beneath the epithelium known as the cambium layer was also seen. (Fig 3,4) No definite cross striations were seen. So the diagnosis of prostatic Rhabdomyosarcoma (Botryoid) in a patient of Neurofibromatosis was confirmed. The child died 24 hours after the surgery due to acute renal shut down and extensive surgical procedure.

DISCUSSION:

Genitourinary rhabdomyosarcoma originates in the urinary bladder, prostate, testes paratesticular sites vagina and uterus. It accounts for 15% to 30% of all rhabdomyosarcoma cases in children during the first two decades of life. Botryoid tumors represent about 10% of all rhabdomyosarcoma cases.

Patients with neurofibromatosis type I are prone to develop malignancy both neuronal and non-neuronal. In non-neuronal tumor the incidence of rhabdomyosarcoma particularly those in urogenital organs including prostatic rhabdomyosarcoma has increased[3].

Local invasion and metastatic spread can be evaluated with ultrasound CT and MRI and accurate assessment of residual disease after therapy is possible[4,5].

Newer diagnostic techniques use immunohistochemical markers of myogenic differentiation including antibodies against myoglobin, desmin, actin and the MyoD 1 gene product. Cytogenetic evaluation may prove useful in the future[6,7].

All children with rhabdomyosarcoma require multimodality therapy. This entails surgical resection in which bladder salvage is an important goal of therapy for patients with tumors arising in the prostate and bladder[6,7]. In rare cases the tumor is confined to the dome of the bladder and can be completely resected. Otherwise, to preserve a functional bladder in patients with gross residual disease, chemotherapy and radiation therapy have been used to reduce tumor bulk, followed when necessary by a more limited surgical procedure such as partial cystectomy. Both the botryoid and the spindle cell subtypes are associated with very favorable outcome[8-10]. In our case because of the extensive nature of the tumor and the very young age of the patient was considered to be not a suitable candidate for preoperative radiotherapy and chemotherapy. Total cystectomy and internal diversion although extensive but was considered to be a reasonable palliative option.

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ADENOCARCINOMA OF ILEUM : A CAUSE OF INTESTINAL OBSTRUCTION

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ABSTRACT

Small bowel malignancy is a rare cause of intestinal obstruction. We report the case of a thirty-five-years old male who presented to us with one and a half-month's history of recurrent abdominal pain associated with vomiting, abdominal distension and constipation. On admission, he was diagnosed to have acute distal small bowel obstruction, which required surgical intervention. Exploration revealed a mass in the terminal ileum. Ileal resection and ileocolic anastamosis was done. Postoperative recovery was uneventful. Histopathology revealed adenocarcinoma involving the full thickness of the wall.

KEY WORDS: Small bowel, Adenocarcinoma, Intestinal obstruction.

INTRODUCTION

Small bowel adenocarcinoma accounts for 2% of all GI malignancies as reported in the world literature and 1% of all cancer deaths2. Duodenum is the most common site of adenocarcinoma (50%)[1-3].The clinical presentation includes abdominal mass, intestinal obstruction and/or perforation[4].

A delay in diagnosis occurs because of non-specific symptoms of the early disease and difficulty in preoperative localization and histopathological diagnosis. World literature shows a delay of upto six to eight months from the onset of symptoms to intervention[4]. A high index of suspicion and more frequent enteroclysis can help in early diagnosis[4].

Jejunal and ileal adenocarcinoma carries a better prognosis2. The reported overall 5-years survival rate is upto 25%5. Presence of lymph node metastasis worsens the outcome even with curative resection[4,7]. Adjuvant treatment does not alter the prognosis[6,7].

CASE REPORT

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A 35 years old male was admitted through emergency with one and a half month's history of recurrent colicky abdominal pain, episodes of non-bilious vomiting, diarrhea and abdominal distension. He also reported an undocumented weight loss and loss of appetite during this period.

During his prior admission in some other hospital, fifteen days back, his symptoms were relieved with nasogastric decompression and he stayed asymptomatic three days after discharge when he presented to our hospital with recurrence of symptoms.

At the time of admission, he was tachycardiac, moderately dehydrated and cachectic. There was no lymphadenopathy. Abdomen was distended with visible peristalsis and clinically there was no ascites.

Investigations revealed a hemoglobin of 13.8 gm% with hematocrit of 42. Total leukocyte count, platelet count, electrolytes, blood urea nitrogen and creatinine were within normal limits. X-rays of abdomen showed dilated small bowel loops with multiple air fluid levels. A provisional diagnosis of acute distal small bowel obstruction was made and nasogastric decompression and intravenous fluid resuscitation was started. Persistant abdominal distension with absolute constipation after about 24 hours of conservative management lead to the

decision of surgical intervention. On exploratory laparotomy, there was a solid mass in the terminal ileum 6-cms away from ileocceal region. There was no ascites and no evidence of peritoneal or liver metastasis. The mass was resected with 5 cms healthy margins. The short distal ileal segment was closed and end to side ileo-transverse anastamosis was done.

Histopathology was reported as stage III adenocarcinoma of ileum involving full thickness of the bowel wall (Fig 1,2). Margins were clear but mesenteric lymph nodes did show tumor deposits.
Postopretaive recovery was uneventful, and the patient was discharged on sixth postoperative day. No adjunct therapy was advised by the oncologist.

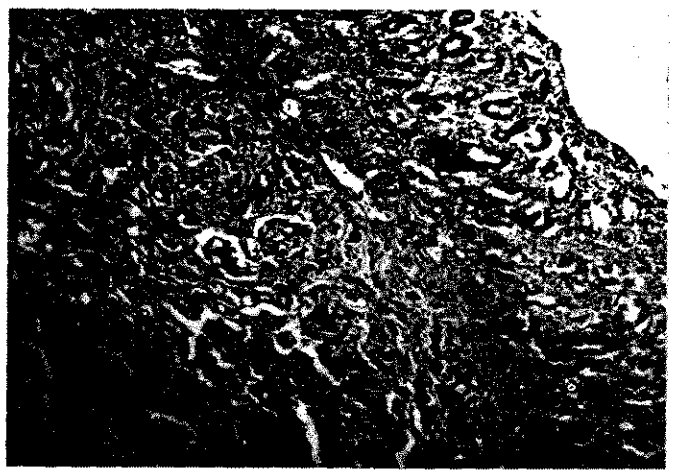

Figure 1: Eosin & hematoxylin Stainig. Manificaion: X 80 Picture shows Infiltrating adenocarcinoma. on the left side. Right side shows stretched mucosa of the small bowel

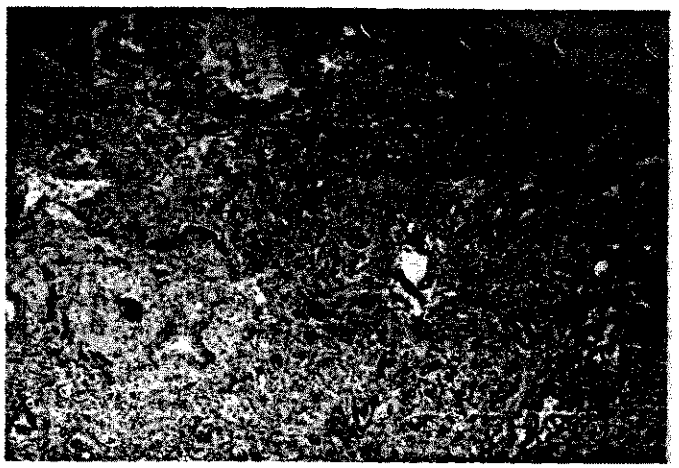

Figure 2: Eosin & hematoxylin Stainig. Manificaion: X 160 Upper 1/3 shows diaorted mucosa. Lower 1/3 Shows Infiltrating adenocarcinoma.

On completion of nine months, he was reviewed last week. He was symptom free. On clinical examination and ultrasonography there was no sign of recurrence .

DISCUSSION

Small bowel malignancy is a rare event. In United States of America, 52 cases of adenocarcinoma of small bowel are reported every year. Histopathology and stage of the disease are the main prognostic factors[1,2,5]. Adenocarcinoma is the most common histology (63%) followed by lymphoma (15%), leiomyosarcoma (13%) and carcinoid tumors (6%) 1. Most common site for adenocarcinoma is duodenum followed by jejunum. Ileum is involved in les then 20% of the cases 2. Adenocarcinoma of small bowel is found predominantly in industrialized countries 3. Most commonly affected age group is between 60 – 70 years [8,9]. It is more common in males [8,9].

In our case the diagnosis was delayed for six weeks since it produced its symptoms. The problem of delayed diagnosis because of vague and non-specific symptomatology and non-availability of a sensitive and specific diagnostic modality has been highlighted in a number of studies [4,7,8]. Enteroclysis, CT scan and, in rare situations, jejunoscopy can help in establishing a preoperative diagnosis[4,7]. In a study of 53 cases of small bowel carcinoma, the diagnosis was suspected preoperatively in only 50% of cases 4. However, in our case we did not suspect preoperativrly.

Most common mode of presentation is emergent with obstruction or perforation. A 10-years' study of 21 cases of small bowel cancers reported 13 out of 21 cases presenting as emergency with 3 perforations and 10 mechanical obstruction[4].

Surgical resection is considered the only curative option with further worsening of survival with adjuvant therapy[2,4,6,7,9]. Palliation includes resection and bypass depending on the site and extent of local invasion. In the present case resection was done without adjuvant therapy. There was no recurrence until last follow up at nine months. The reported recurrence rate is upto 42%. The most common recurrence pattern is peritoneal carcinomatosis followed by abdominal wall recurrence[6]. 28% cases present with distant metastasis[8]. Adenocarcinoma itself is considered a poor prognostic indicator with an overall five year survival between 15 – 25% with the median survival of 13 months. The reported stage related 10-year survival is upto 75% for stage I, 25% for stage II and 0% for stage III.

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FAILED ENDOTRACHEAL INTUBATION

AFTAB IMTIAZ

ABSTRACT

A middle-aged lady suffering from a huge goiter was scheduled for subtotal thyroidectomy. After giving inhalation anaesthesia, when patient went into surgical plain of anaesthesia, oral endotracheal intubation was attempted, but failed she was then managed by laryngeal mask airway. Recovery and follow-up were uneventful.

KEY WORDS: Laryngeal mask anaesthesia, Failed intubation .

INTRODUCTION

Intubation of trachea is commonly performed in patients undergoing general anaesthesia. Alternatives to orotracheal intubation include awake orotracheal and nasotracheal intubation and intubation using fiberoptic laryngoscope. These alternatives are considered when orotracheal intubation during general anaesthesia might be impossible because of altered anatomy.

CASE REPORT:

A 50 years old lady with nontoxic "huge goiter" was scheduled for subtotal thyroidectomy. She had hypertension, diabetes mellitus and ischemic heart disease. On clinical examination the patient had short muscular neck, with huge goiter and a full set of teeth. Temporomandibular joint mobility was satisfactory but cervical spine mobility was restricted. All the investigations including thyroid function tests were within normal limits.

Difficult intubation was anticipated so equipment was kept ready to deal with the problem. In our center flexible fiberoptic laryngoscope is not available. Anaesthesia was induced with inhalation induction, when patient was in surgical plain of anaesthesia, direct laryngoscopy was done but epiglottis could not be seen despite the fact that cricoid pressure by an assistant anaesthetist was applied and attempted oral endotracheal intubation failed. During the procedure, arterial oxygen saturation dropped to 80% immediately laryngeal mask airway was passed and ventilation done. When arterial oxygen came up to 97%, anaesthesia was maintained with 40% oxygen, 60% nitrous oxide and 1 to 2% halothane through Bain circuit.

Subtotal thyroidectomy was done through the laryngeal mask airway on spontaneous ventilation. Titrating doses of intravenous nalbuphine was given by monitoring respiratory rate. Anaesthesia course and surgery were unremarkable. The recovery and postoperative period were uneventful. Patient was discharged from hospital without any complication.

DISCUSSION:

A prospective study of intubaion problem revealed a 3.6% incidence of difficult intubations in 1200 cases. Aro and his colleagues found that 85% of difficult intubations could be managed by experienced anaesthetist with the use of an introducer. In 15% of difficult intubations a more complicated approach was necessary. Management of difficult intubation depends on the availability of specialized skills, apparatus, urgency of surgery and the type of surgery. It is mandatory to ensure that oxygenation is maintained with resumed artificial ventilation at intervals during attempts to pass a tracheal tube. The risk of aspiration of gastric contents should be minimized. Desperate and prolonged attempts at intubation resulting in intermittent hypoxia should be avoided. It is essential to avoid trauma and certainly to reduce this to minimum[1-3].

PLAN FOR FAILED INTUBATION:

i) Maintain cricoid pressure.

ii) Put patient head down and on the left side. Call a second anaesthetist.

ii) Oxygenate by intermittent positive pressure ventilation: it may be difficult-try different positions and sizes of airway-get someone else to squeeze the bag if necessary,

iv) If obstruction persists, try effect of releasing cricoid

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pressure.

v) If ventilation and oxygenation is easy, ventilate with nitrous oxide, oxygen and the agent of your choice (halothane, enflurane, isoflurane etc.)

vi) Establish surgical anaesthesia with spontaneous ventilation using facemask or laryngeal mask airway (LMA).

vii) Level the operation table and place the patient supine with lateral tilt.

viii) Allow the operation to proceed.

ix) If oxygenation is difficult, let the patient wake up.

x) Consider the alternative techniques of anaesthesia, regional or local anaesthesia.

xi) Intubation of trachea using awake flexible fiberoptic laryngoscope is useful for patients in whom the glottic opening cannot be visualized because of anatomic abnormalities.

xii) Repeated and prolonged attempts at intubation resulting in hypoxia should be avoided.

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INTRAMUSCULAR BENIGN LIPOMA OF THE TEMPORALIS MUSCLE

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ABSTRACT

Lipoma within the musculature of the head and neck is rare. Most of them are infiltrating lipomas. There is no report of a well circumscribed lipoma of the temporalis muscle. We present a 58-year old man who had a non-pulsatile soft mobile mass in the right temporal fossa extending down in the cheek. The lesion was 15x7x3cm in size. Patient recovered well after surgery with a good cosmetic result.

KEY WORDS: Laryngeal mask anaesthesia, Failed intubation .

INTRODUCTION

The most common benign mesenchymal neoplasms are lipomas. Lipomas are rare in intramuscular location and their presence within the musculature of the head and neck is particularly unusual. Lipomas are usually of infiltrating type, and we know of no previous description of a well-circumscribed lipoma of the head and the neck. The purpose of this paper is to present a case of a single, well-encapsulated lipoma of the temporalis muscle in the infratemporal fossa.

CASE REPORT:

A 58 –year-old man had a painless tumor of the right temporal area for three years, but had noted discomfort in the same region for the past three month. Under examination, a non-pulsatile, soft, mobile mass was seen and palpated in the right temporal fossa and it was extending into the infratemporal fossa under the zygomatic arch.(fig.1&2). On CT scan the tumor was located in the temporalis muscle of the right temporal fossa extending under the zygomtic arch into the cheek.

He was operated on through the sub temporal layer using a face lift from the right temporal incision to the upper pole of the ear. The encapsulated elastic soft lipomas were

FIG 1 : Pre – operative frontal view.

FIG 2 : Pre- operative lateral view.

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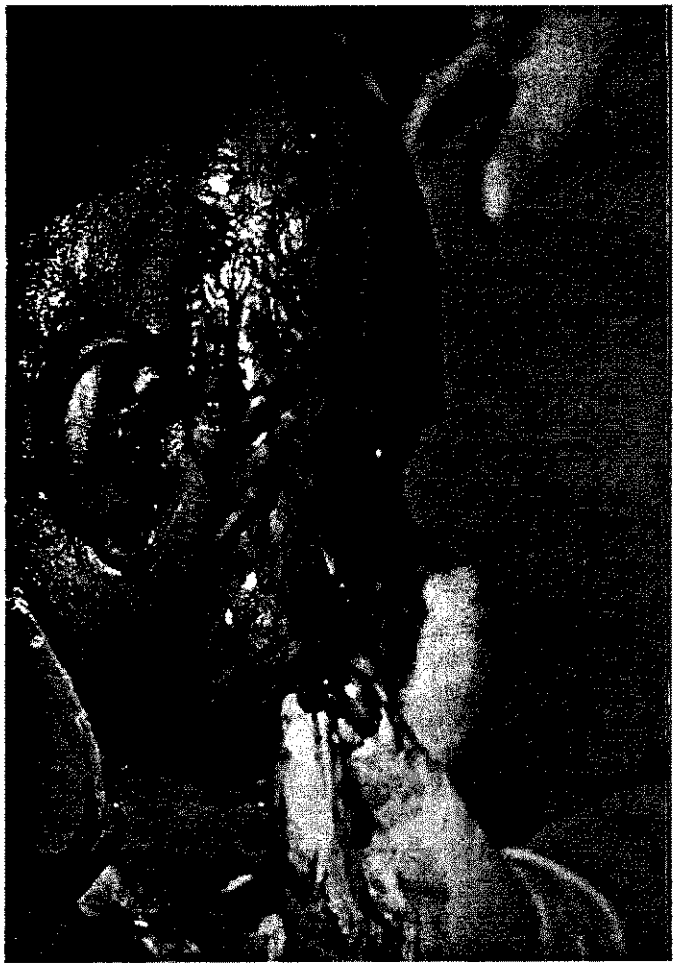

FIG 3: Intra-operative picture of the specimen over the face.

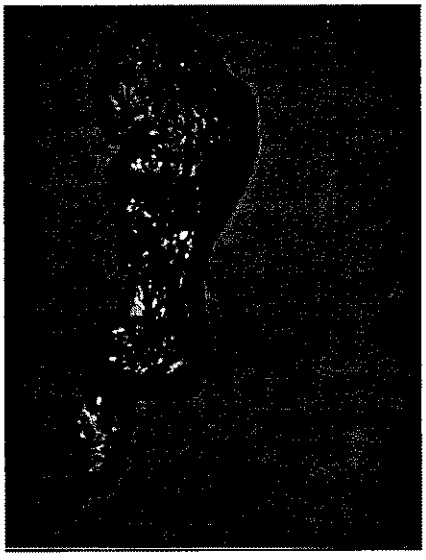

FIG 4: Picture of the specimen.

seen hanging along the coronoid process of the mandibular bone extending into the cheek. It was completely resected with blunt dissection.(fig.3 & fig 4)

His face was lifted by resecting a portion of skin 1.5cm

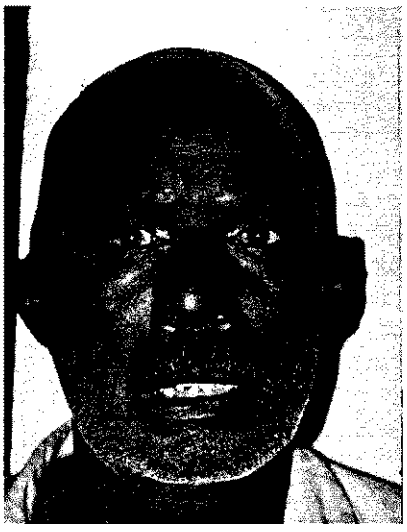

FIG 5: Post-operative frontal view.

FIG 6: Post operative lateral view.

wide in the temporal area. The tumor was a single homogenous soft mass measuring 15x7x3 cm and was diagnosed as lipoma on histopathological report. Post operative results were excellent with no recurrence after 4 months of follow up. (Fig5-6)

DISCUSSION:

Lipoma are commonly seen in the shoulder, back, posterior neck region, thigh, axilla, hip, buttock, upper arm and legs. They can occur in any part of the body, and usually. they are in the subcutaneous tissue. They hardly ever occur in the distal region of the extremities or in the craniofacial region. However intramuscular lipomas are often undetected, and few cases have been reported where tumors have been left to grow over 20 cm and a few kilograms in weight. Tumors in the subcutaneous tissue are relatively easily detected.

Rare cases that occur in the head and the neck region are in the trapezius muscle, tongue and the temporal muscle[1-3]. Intramuscular recurrences are common, particularly in the maxillofacial region[4]. There have been several cases of intramuscular lipoma in the upper or lower

extremities[5,6]. It is difficult to remove maxillofacial and intraoral lipomas completely using only the limited facial incision and the intraoral approach. In our case tumor was located close to the muscle area and was safely removed through the basic temporal incision from the temporal area to the frontal earlobe. During one operation the temporal skin, which had expanded because of the tumor, was also removed. This method based on a face lift incision allowed safe removal of the tumor in the temporal fossa without any damage to the facial nerve. It was an effective approach which could improve appearance as well. The risks of recurrence are thought to be low, as the tumor was completely removed and there was no intramuscular invasion.

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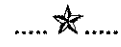

TUBERCULOUS INJECTION ABSCESS

MASOOM MIRZA, M SARWAR

ABSTRACT

Tuberculosis is a common disease but tuberculous injection abscess is a rarity which is reported here in.

KEY WORDS: Tuberculosis, Injection, Abscess,

INTRODUCTION

Tuberculosis has plagued mankind since ancient time, as indicated in Egyptian mummies and earlier human remains. Tuberculosis is still a massive global health problem hence declared as a global emergency by WHO, in 1993[1-2]. Most human tuberculosis is caused by Mycobacterium tuberculosis but some cases are due to M. Bovis, M. Africanum and atypical mycobacteria which are widely found as environmental saprophytes in soil and water. Tuberculosis can affect any organ system of the body. Tuberculosis of skin mostly occur in the tropics and usually seen in children. Infection results from trauma to the skin with the innoculation of mycobacteria[3-6]. In addition to surgical excision treatment of cutaneous tuberculosis is along the established lines for pulmonary tuberculosis[4-5].

CASE REPORT:

A two years old girl, presented with one month history of swelling in the centre of her left buttock. She was alright two months back when she developed fever for two days, for which her mother took her to a dispensary in her village. She was given an injection on her left buttock and some syrup. After about a month, she developed swelling at the site of injection with pain and fever. She was given a topical application by the same medical practitioner with no improvement. Then her mother took her to a hospital where diagnosis of injection abscess was made and incision and drainage performed. The wound of incision and drainage did not heal in four weeks and another abscess developed five centimeters lateral to the primary wound.

She was investigated and operated again. At incision and drainage, pus with some cheesy material came out. Tissue was taken from the abscess wall which showed tuberculous infection. She was started on anti-tuberculous treatment and both wounds healed in next month The child was vaccinated with BCG; there was no family history of tuberculosis.

DISCUSSION:

Despite of the fact that disposable, sterile syringes are used in most of the hospitals, improperly sterilized syringes are still being used in the remote health centres and by clinics quacks[5]. Suppurative organisms especially staphylococcus aureus usually cause injection abscesses but tuberculosis has also been described following subcutaneous and intra muscular injection[5,6]. Mode of inoculation of infection is either the contaminated syringe, needle, injecting material or a medical attendant who exhaled tubercle bacilli on patient's skin which are then introduced by injection[7].

Gluteal region is commonly seen affected in other series as in this case[6,7]. Post injection tuberculous abscess develop with in a few week to a year or more after the injection[3,5,6] and it was four weeks in present case. There are series reporting that injecting person (nurse, vaccinator) was later found to have tuberculosis[5-7]. Non healing of abscess after incision and drainage is a feature of tuberculous injection abscess like in our case[6]. Reactive lymphocytosis is also reported in two cases of tuberculous injection abscesses and in present case lymphocyte count was 60%[6].

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In case of non healing abscess tuberculosis should be considered as a possibility because lack of suspicion of this unusual presentation can prolong the course of disease and will never heal without anti-tuberculous treatment.

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AN UNUSUAL COLD ABSCESS WITH A STRANGULATED PARA-UMBILICAL HERNIA, IN A PATIENT WITH STEIN-LEVENTHAL SYNDROME

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ABSTRACT

We report a rare case, in which a massive intra-abdominal tuberculous abscess was a cause of diagnostic confusion, in a young girl previously diagnosed with Stein Leventhal syndrome, when she developed a strangulated para-umbilical hernia.

KEY WORDS: Intra-abdominal abscess Tuberculosis Ascites Para-umbilical hernia Stein Leventhal syndrome.

INTRODUCTION

Isolated intra-abdominal tuberculous abscess is an uncommon presenting feature of tuberculosis. Stein Leventhal syndrome or polycystic ovary syndrome (PCOS), first described in 1935[1], is characterized by amenorrhea, hirsutism, obesity and sclerotic ovaries and is fairly common in women of childbearing age, with an estimated incidence varying from 1-8 % [4]. Here we report a case in which exploration for a strangulated para-umbilical hernia led to an incidental finding of a massive cold abscess, mimicking exudative ascites, in a young lady already diagnosed as having polycystic ovary syndrome (PCOS).

CASE REPORT

A 24 year old lady, diagnosed case of Stein Leventhal syndrome, presented with abdominal pain, distension and mild jaundice. Previously, she was admitted in the medical ward for the work up of unexplained exudative ascites. Her ultrasound examination reported marked ascites, polycystic ovaries and fibroid uterus. Diagnostic parascentesis was done on various occasions, and each time the analysis showed proteins > 4500 mg/dL, albumin > 2200 mg/dL, and TLC > 1600 cells/mm^3. Although her Mantoux test showed an induration of 18 mm, even with no history of BCG vaccination, her clinical picture was not suggestive of tuberculosis.

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On examination, she was a hairy, obese lady (body mass index of 39) with a pulse of 100/ min, blood pressure 90/60 mm Hg and temperature of 100 F. She was anemic and dehydrated. Abdomen was distended with obvious superficial veins. It was mildly tender with positive fluid thrill and no palpable viscera. An area 4 x 4 x 2 cm red, warm and tender in the para-umbilical area was noted. On questioning, she admitted to having had a para-umbilical swelling for many years, It was thus thought that she had a para-umbilical hernia, which had strangulated and reduced en-masse spontaneously or during examination in the medical ward. There was no guarding or rigidity except in the para-umbilical region. Cardiovascular and chest examinations were unremarkable although nervous system examination revealed generalized hyper reflexia. Her investigations showed, hemoglobin of 10.0 g /dL, erythrocyte sedimentation rate of 60 mm / 1st hour. Urea, creatinine, electrolytes, urinalysis and liver functions were within normal limits. With the diagnosis of strangulated para-umbilical hernia, an exploratory laparotomy was carried out.

Per-operatively, a very large, thick walled granular abscess cavity was found. It was limited inferiorly by a thick walled peritoneum, and extending laterally to parities, covering all viscera, both in abdomen and pelvis. It contained four and half liters of thick pus, which was sucked out. There was indeed a strangulated para-umbilical hernia with some omentum and toxic fluid still present in the sac while the rest of the omentum was intra-peritoneal and was forming the posterior wall of the abscess cavity. The abscess cavity was found studded with clusters of cheesy granulomas. Abdominal contents

were tightly packed within the thick walled peritoneum, which on opening revealed unaffected bowel loops and viscera. The hernial sac was excised and the abdomen closed with a drain. The aspirated fluid was saved for culture and sensitivity, and a piece of abscess wall was sent for histopathology.

The patient made an uneventful recovery. There was no growth on culture and histopathology reported: chronic granulomatous inflammation with caseous necrosis. She was prescribed anti tuberculous therapy and was sent home. Follow-ups at one month interval were unremarkable.

DISCUSSION

Stein Leventhal syndrome, also known as polycystic ovarian syndrome (PCOS), was first described in 1935 by Stein and Leventhal[1] and is characterized by amenorrhea, hirsutism, obesity and sclerotic ovaries. Ultrasound studies have shown that approximately 20 % of young women have polycystic ovaries (PCO)[2,3] but the occurrence of full-blown PCOS varies from 1-8% in general population[4]. Our patient was diagnosed as having this syndrome on the basis of clinical, biochemical and radiological evidence. She was being managed on hormonal therapy.

Usually, extra-luminal abdominal tuberculosis presents either as tuberculous ascites or tuberculous mesenteric lymphadenitis, which may lead to intra-abdominal abscess. Yet the presentation of this disease as an isolated intra-abdominal or abdominal wall cold abscess is uncommon, although cases have been reporte[5-6]. In our patient, because of obesity and total lack of symptoms, the abscess was initially missed.

Para umbilical hernias, are believed to arise through the decussating fibers of linea alba adjacent to the umbilical cicatrix, themselves are fairly common[7], even though these, along with umbilical hernias account for only 0.03% of all hernia operations performed in UK[8]. Ninety percent of these patients are women, invariably, those who are overweight[9].

Co-existence of all three aforementioned pathologies has never previously been reported. Morris-Stiff et al have described an association between para-umbilical hernias and autosomal dominant polycystic kidney disease (APKD)[10], but an association with PCOS is not available in literature, although obesity provides a common relation. An earlier diagnosis, in our patient, could have been made on the basis of CT scan, as it is the best modality for investigating an intra-abdominal abscess[11], but in our hospital, ultrasound instead of CT scan, remains the first line investigation for intra-abdominal abscesses, because of it being the cheaper and more easily available tool. With an abscess of this size, containing 4.5 L of pus, it is understandable why multiple expert sonologists mistook it for massive ascites and the likelihood of an abscess was never sought. Diagnostic parascentesis, though done from different locations, always drained exudative abscess fluid, which added to the confusion.

Few issues remained un-answered. Whether the abscess was because of the strangulated portion of omentum, complicated by an old dormant tuberculous focus; or the hernia was strangulated because of the slowly enlarging abscess, stretching and obstructing the blood supply to the hernial sac. Or perhaps the two findings are a mere co-incidence. To the best of our knowledge, this remains the only such case ever reported.

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FRACTURE OF POSTERIOMEDIAL PROCESS OF THE TALUS

SAQIB AMIN

ABSTRACT

Two cases of fracture of the posteriomedial process of talus are reported. One was treated conservatively and other by excision. The appearance of the CT scans, the diagnostic options and the mechanism of injury are discussed.

KEY WORDS: Fracture talus, Management.

INTRODUCTION

The posterior portion of the talus is composed of two tubercles, the lateral and the medial, between which is the groove for the flexor halluces longus tendon. This process develops from a separate ossification centre which may fail to fuse, forming the "os trigonum". The lateral tubercle the larger of the two, projects more posteriorly than the medial and serves as the talar attachment for the posterior talofibular ligament[1]. The medial tubercle is smaller and more difficult to recognize in the lateral x-rays. Some fibers of the deltoid ligament and those of the talocalcaneal ligament are attached to it. Cedell explained the fracture of this tubercle as an avulsion injury due to forced dorsiflexion of the foot. This contradicts the opinion of other authors [2,3].

Unrecognized fracture of the posterior process of the talus may cause local pain as well as the tarsal tunnel syndrome. Computed tomography is important in assessing the exact location, size and displacement of this fracture which is rare[4].

CASE REPORT:

CASE 1

A 26 years old man fell from a height of 10 meters landing on his left foot in a plantar flexed position, Examination revealed diffuse swelling and tenderness of the ankle, No fracture was seen in the intial radiograph but the foot was immobilized in a cast below knee (short leg cast) for almost 6weeks. The cast was removed after 6/52 and rehabilitation was started, but the pain remained. A CT scan was done and a fracture of the medial tubercle of the posterior process was identified (fig.1). Three months after the injury using a postermedial approach (fig.2) the whole fragment was excised (fig 3). With 6 week of physiotherapy the pain disappeared and the range of the motion gradually returned to normal

CASE 2

A 35 years old man fell from a ladder, landing on a plantar flexed right foot. Radiographs were taken in the emergency room that showed a fracture of posteromedial process of the talus. the ankle was immobilized and CT was performed after few days confirming the initial

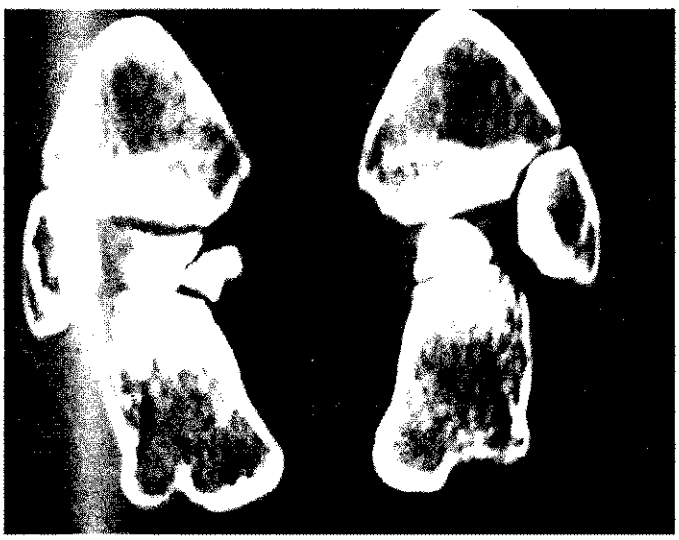

Fig.1. CT scan showing a large fragment of the posteromedial process of the talus

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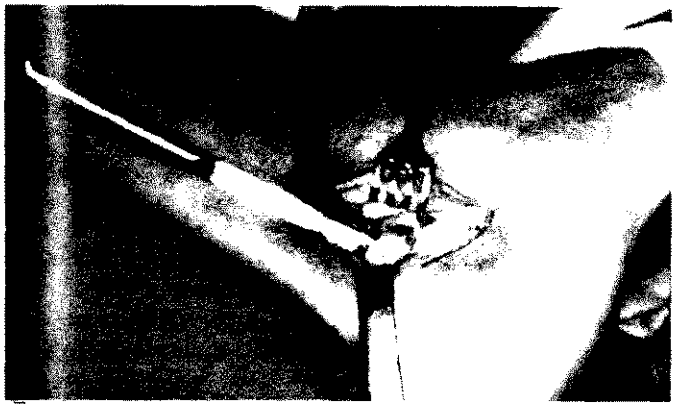

Fig. 2. Posteromedial approach reveals the position of the flexor hallucis longus tendon and the fragment

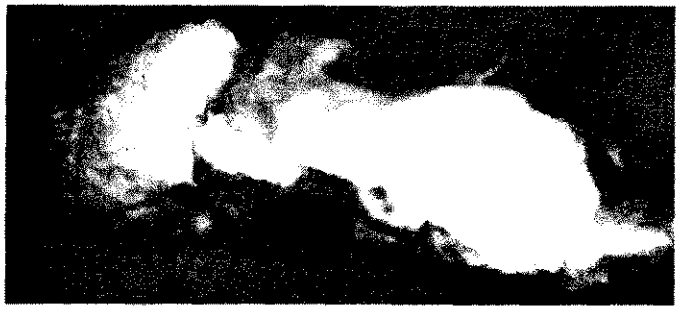

Fig. 3. The excised fragment.

Fig. 4. Follow up CT scan shows partial healing of the fragment.

diagnosis. As the foot was grossly swollen, it was treated conservatively with a splint for 8 weeks followed by 2 months of physiotherapy. A gradual return to work was then allowed. The patient now had normal trange of motion and walk without pain and limp (fig 4).

DISCUSSION

Lauge-Hansen[5] and Brostrom[2] stated that Isolated rupture of the posterior talotibial Hgamnt, a portion of the deltoid Ligament, was a very rare injury. How ever cedell, in 1947, described four cases of the fracture, of the posteriomedial process of talus in patients with chronic medial pain and swelling in the ankle joint[3]. He described these lesions fractures, resulting from forced dorsiflexion and pronation, but there is some controversy concerning the mechanism of injury. Cedell described as avulsion mechanism but others authors and my two cases suggest that this fracture can be due to direct impingement in panter flexion.

These case reports showed the need focusing the computed tomography in the evaluation of such fractures in order to assess the exact location, size, displacement, the degree of communution and involvement of the subtalar joint knowledge of the associated lesion is helpful in selecting the surgical approach in first cases the fracture was exposed through posteromedial approach. The fragment was diplaced more than 3mm involved the articular surface. Excision was correct choice but larger fragment can be reduced and stabilized with a screw[7].

When conservative treatment is undertaken initial immobilization is required followed by a period of non-weightbearing and appropriate rehabilitation in order to obtain best clinical results [9].

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