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PERFORATED PEPTIC ULCER
A REVIEW OF 36 CASES

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ABSTRACT... Objectives: To evaluate the epidemiology of peptic ulcer perforation in Armed Forces and further management / outcome of the patients. **Methods:** Data of 36 patients with perforated peptic ulcer collected. This data was analyzed on SPSS 13. **Period and Setting:** CMH Rawalpindi from Jan 1979 to July 1981, Jan 1985 to Dec 1987 and Jan 2001 to Dec 2003. **Results:** Out of 36 patients 35 were male and only one was female. Twenty four (67%) were between 31-50 years. No past history was taken from eight (22%) patients. Thirty four (94%) patients presented with duodenal perforation. Twenty patients (55%) had rigidity all over abdomen and peristalsis were present in ten (28%) patients who reported within twelve hours. Seventy eight (78%) were diagnosed by history and simple radiological examination. All the patients were treated by laparotomy (simple closure with omental patch). Post operative complications occur in ten (28%) patients and mortality rate was 8%. **Conclusion:** Predominantly the peptic ulcer perforation occurs between 30-50 years of age. The incidence reduces with succeeding years of study. Post operative complications were less in younger age group .Early diagnosis can be made easily by taking good history and performing simple radiological examination.

Key words: Peptic ulcer, perforation.

INTRODUCTION

Peptic ulcer perforation (PUP) is one of the commonest perforations of gastrointestinal tract in Pakistan. Due to rapidly spreading peritonitis, it is a life threatening complication of peptic ulcer disease. It needs prompt resuscitation and appropriate management if morbidity and mortality are to be reduced.

The peptic ulcer disease has reduced due to improvements in diagnosis by endoscopy and anti-ulcer drugs advancement with eradication of Helicobacter pylori. The majority of the peptic ulcers are associated with Helicobactor pylori infection and it is now clear that eradication of H–pylori dramatically reduces ulcer recurrence[1,2,3].

In one report hospital admission for peptic ulcer decline dramatically in between 1980-2003 but remained unchanged or slightly increased for complications[4]. In this study the problem of PUP in Armed forces of Pakistan was explored.

MATERIAL AND METHODS

Data of 36 patients with perforated peptic ulcer collected from CMH Rawalpindi. The record of 18 patients from Jan 1979 to July 1981, 12 patients from Jan 1985 to Dec

1987, and 6 patients from Jan 2002 to Dec 2003 collected and analyzed. The patients were managed by three different surgical teams. The data was analyzed for the following variables i.e. incidence, age distribution, duration of perforation, diagnosis from history including past history, diagnostic data including rigidity of abdominal muscle, presence of peristalsis, free intraperitoned air shown in radiological films. Morbidity and mortality were also assessed.

RESULTS

Out of 36 patients 35 were male. This is because CMH Rawalpindi mainly deals with male patients. Twenty four (67%) patients were between 31-50years out of thirty six patients with an age range between 19 to 70 years. Only four patients reported within four hours and 14 (39%) between 04-24 hours, twelve (33%) patients reported between 24-48 hours, six (17%) patients reported after 48 hours. This hospital is referral hospital for Armed forces and especially for pensioners. Its drainage areas are remote with difficult transport network.

Thirty one (86%) patients presented with sudden onset of pain in the epigastrium, the rest presented as vague symptoms of upper abdomen. Sixteen (44%) patients revealed abdominal rigidity in the right hypochondrium and right half of the abdomen but in twenty (55.5%) patients abdominal rigidity was present in the whole abdomen. This is because most of the patients reported late. In ten (28%) patients peristalsis were good but in twenty (55.5%) patient abdomen was silent. Twenty (55.5%) patients had positive history of peptic ulcer and dyspepsia of variable duration. Six (17%) had no past history or any dyspepsia. Past history of ten (28%) was not documented. In thirty three (92%) patients perforation was in the first part of duodenum. Three patients has gastric perforations, biopsy results came as benign. Erect chest x-ray demonstrated gas under diaphragm (rightdom) in 28 (82%) out of 34 patients whom x-ray examination were done. Simple closure of perforation with omental patch was carried out in all the patients.

Post operative broad spectrum antibiotics and injectable cimetidine were used . Post operative complications occurred in ten (28%) patients. The complications were, wound infection in all ten patients, leakage of perforation and subphrenic abscess in two patients besides empyema and Jaundice. Post operative complications in six patients during first study, three in second and one in third. There were three (8%) deaths. The incidence of perforation decreased steadily from first duration to last duration of study and rate of post operative complications also reduced with succeeding year of study, due to advancement in antibiotic therapy and anti ulcer treatment.

DISCUSSION

Perforated peptic ulcer is one of the serious complications of peptic ulcer disease. The complications may be graved due to peritonitis especially when the patient reports late.

In this study, the middle age group of the males between 31-50 years were affected. In one study in Africa, the perforated peptic ulcer disease is a disease of young male[5]. In another western study, admission rates for peptic ulcer generally fell for younger individuals but increased for old people with complication[6].

In my study the perforation rate is decreased in recent years due to advancement in anti peptic ulcer therapy. The incidence of perforated peptic ulcer has dropped in people who were taking proton pump inhibitor[7]. In western countries, the incidence of peptic ulcer is decreased and increased in perforation was related to NSAID[8]. It is established that H. Pylori is responsible for peptic ulcer disease but in this study it was not explored. H. Pylori was present in a high proportion of patients with duodenal ulcer perforation[9].

In this study 85% patients presented with sudden onset of pain in the epigastrium. Some times perforation may be sealed and patient does not report to hospital. About 7 (0.13%) patients out of 5539 patients, sealed perforated duodenal ulcer discovered during elective laparoscopic cholecystectomy[10]. In twenty (55.5%) had positive history of peptic ulcer and dyspepsia of variable duration but past history was not documented in ten (28%) patients. It is not good habit to omit past history especially for young doctors.

Twenty eight (78%) were diagnosed by history and simple radiological (Erect chest X-ray) examination. The value of the radiological investigation has been compared with other writers and an accurate diagnosis made in (88%) of the cases[11]. In case of perforated duodenal ulcer, free intraperioneal gas is less likely to be seen if the time interval between the perforation and radiological examination in short. By taking 50ml of gastrografin by mouth 5 minutes before chest X-ray and abdominal films were taken, by this method 24 out of 25 cases of perforated were correctly diagnosed[12]. Plain X-ray of the abdomen was a traditionally the first procedure specially in detecting free air, ultrasound is very useful in examining free liquid, while C.T. was more sensitive to the combination liquid and minimal amount of free air, which was undetectable to ultrasound and X-ray[13].

In my study, in all the patients simple closure of perforation with omental patch was done. Laparoscopic repair seen better than open repair for low risk patients but open repair is more appropriate for high risk

patients[14]. Laparoscopic repair of perforated peptic ulcer is a safe reliable procedure even in delayed presentation with peritonitis[15]. Laparoscopic repair has acceptable morbidity[16]. Omental plugging was a safe and reliable method of treatment for large sized duodenal peptic perforation[17]. Non-operative procedure is a safe and effective measure for the management of perforated peptic ulcer in selected cases[18].

The complication rate decreased with subsequent duration of this study and mortality rate was 8%. Children with peptic ulcer perforation have a more favourable outcome than adults, lower mortality rate, and lower complication rate[19]. In other studies mortality rate was 10%[20], 11.5%[21] and 8%[22].

CONCLUSIONS

The peptic ulcer disease has reduced due to improvements in diagnosis by endoscopy and anti-ulcer drugs advancement with eradication of Helicobacter pylori.

Now a days due to increase facilities of transportation, the patients report early in the hospitals, so morbility and mortility has much reduced.

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David McCullough (1933 -)