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General Surgery

COMPARATIVE STUDY OF REPAIR OF PEPTIC PERFORATION WITH AND WITHOUT OMENTOPEXY

Dr. Bharat P. Mistry M.S. General Surgeon General Hospital,Palanpur-385001.

Dr. Geeta B. Patel* M.D. Anaesthesiology General Hospital, Palanpur-385001. *Corresponding Author

Dr. S. R. Joshi M.S. General Surgeon, Palanpur-385001.

ABSTRACT peptic perforation is potentially complicated surgical emergencies & proper early management is necessary to avoid subsequent problems,the aim of study was to study the treatment and outcome of peptic perforation patients undergoing emergency laparotomy for perforated peritonitis.There are different operative management for this like conservative treatment,Simple closure of perforation,closure of perforation with omentum.This study was conducted in surgical department of 50 patients appearing with peptic perforation.All the patients with perforation at pyloric end of stomach were included in this study.Duodenal perforation and servere co-marbid conditions were excluded from study.30 patients treated with omentopexy and rest 20 patients without omentopexy (with simple closure), Immediate and late postoperative complications are recorded.Additional data were obtained by review of electronic records and review of case notes.Out of 50 patients 40 male pateients and 10 female patients.The majority of male patients were in the middle age group between 35 to 50 years of age,the female were of older age group between 40 to 60 years.These patients were presented with abdominal distention and epigastric pain,out of 50 , 30 patients were treated with omentopexy & 20 patients were treated with simple closure.In postoperative period 3 patients had burst abdomen on 5th postop day.Wound infection occurred in 4 patients.Hospital stay was 5 to 10 days.There was no single mortality recorded in this series.In summary,Almost all the patients can be effectively managed by laparotomy.The surgery with omentopexy giving excellent results in terms of healing,morbidity and mortality.

KEYWORDS : peptic perforation,omentopexy, laparotomy

INTRODUCTION : Peptic perforation is a very complicated common life threatening emergency and requires urgent surgical intervention.Many different form of treatment available ranging from nonoperative option to laparoscopic repair.However,closure with an omental patch is well established as optimal procedure.Most common etiology underlying this is peptic ulceration.Conservative treatment has a very limited role.Studies have suggested that if signs of peritonitis are present,the exploratory laparotomy should be mandatory.This should be done within 12 hours to avoid poor outcome.Different surgical options are available & choice depends on duration of peritonitis,size of perforation other associated comorbidity.Surgical treatment is the method of choice.Omentum has still a role in closure of peptic perforation.The aim of study was to examine the management and outcome of patients with omentopexy and simple closure of perforation of pyloric end of stomach.

MATERIAL & METHOD : study was conducted in surgical department.50 patients presenting with peptic perforation were studied.All the patients with perforation at pyloric end of stomach.Duodenal perforation and severe comorbidity patients were excluded from study.Detailed personal past family history & clinical history was taken in all the patients.Associated risk factor & comorbid condition's history was also taken.Patients were investigated with haematological investigations like complete haemogram, RFT,LFT, RBS, serum electrolytes.Ultrasound of abdomen & X-ray abdomen in standing & lying position,X-ray chest(PA) was done and in some case city scan of abdomen done.Resusctation was done in all the patients by using transfusion of crystalloids 20-40ml/kg of body weight.ECG & other necessary investigations was done in aged patients.Before surgery adequate urine output & stable haemodynamics was ensured.broad spectrum antibiotics an aminoglycosides & metronidaeole were given in all the patients uender high spinal anaesthesia,general anaesthesia,an upper Rt.paramedian incision was given.The site & size of perforation was noted.Freshening of margins was done.Several full thickness simple mersilk 3.0 sutures are placed across the perforation & pedicled omentum is placed across the perforation.The silk sutures are secured.Repair can be tested by putting the saline in peritoneal cavity and insufflating air into stomach through nasogastric tube,if there is no air leak the perforation has properly sealed.After peritoneal washing,one or two tube drain was left in pelvic cavity.A pedicle of omentum based onomental artery was brought between these sutures & these sutures are tied agin with pedicle of omentum between knots over the perforation.After cleaning peritoneum two drains were inserted one in hepatorenal pouch & another in pelvic cavity.The right paramedian incision was closed in layerwise using monofilamentous & polypropylene suture.Preoperative nasogastric decompression using Ryle's tube was done during resuscitation with intravenous crystalloid infusion shoud be continued in the postoperative period regarding pain,wound infection,leakeage,burst abdomen,hospital stay.The follow up was done for 3 months.

RESULTS : Out of 50 cases there were 40 male patient & 10 female patients with ratio 4:1.The majority of male patients were in the middle age group between 35 to 50 years of age.The female patients were of older age group between 40 to 60 years of age.Most of the patients presented with abdominal distenion & pain.Only few patients have ulcerative dyspepsia.Majority of these patients present with acute free fluid in peritoneal cavity.The 38 male patients have history of smoking or alcohol & occasional use of NSAID .The rest of 2 patients did not give history of any abuse.The 8 female patients gave history of use of NSAID drug for joint pain.The rest of 2 female patients gave history of none of these .X-ray abdomen showing free gas under diaphragm in all the patients.Good resuscitation with crystalloid,hemodynamic stability & adequate urine output assured in all patients.Exploratory laparotomy done in the patients under general anaesthesia or spinal anaesthesia.Out of 50 patients,30 patients underwent omentopexy,20 patients underwent simple suturing without omentopexy.During immediate postoperative period all these patients was uneventful.In late postoperative period 3 patients had burst abdomen on 5th postoperative day & 4 patients develop wound infection & they were treated with systemic antibiotics & local dressing.The minimum hospital stay varied from 5 days to 10 days.The 3 months follow up none of the patients had symptoms of epigastric pain or recurrence or any other.These were no mortality in this study.

Table 1 : Age & Sex incidence in study

Sex	Age(years)				Total
	20-30	31-40	41-50	51-60	
Male	6	11	15	8	40
Female	1	2	4	3	10

Table 2 : Surgical method

Method	Male	Female	Total
With omentopexy	25	5	30
Without omentopexy	15	5	20

Table 3 : Complications

Complication Type	Male	Female	Total
Wound infection	3	1	4
Burst abdomen	2	1	3

Table 4 : Complication		
Complication	**With omentopexy**	**Without omentopexy(Simple suturing)**
Wound infection	1	3
Burst abdomen	1	2

DISCUSSION : In present study all the patients diagnosed for peptic perforation at our hospital.peptic perforation is conventionally treated with primary closure and covered by omentum & by simple closure of peptic perforation both are almost efficient method for treatment.Use of omentum helps In sealing the perforation & reduces the risk of cutting through of sutures used for perforation closure, neovascularisation accederates ulcerhealing & also prevent recurrence.Laparoscopic closure of peptic perforation is also gaining popularity now a days because of less pain,reduced morbidity & reduced hospital stay but this takes more surgical duration require trained person so laparoscopic closure of peptic perforation is not yet the procedure of choice in majority of hospitals.Omentopexy has excellent result.Now a days medical therapy for H pylori eradication has resulted in reduced incidence of peptic ulcer disease and peptic perforation.Omentopexy is safe and produces excellent long term results.Simple closure of peptic peroration without omentopexy has also good surgical outcome.Only 4 patients had wound inflection which was minor & healed with antibiotics & dressings.Only 3 patients had burst abdomen & they were resulted well.There was no mortality in this study.

CONCLUSION : In summary,the surgery for peptic perforation with omentopexy giving excellent results in terms of healing,morbidity & mortality.The need for definitive surgery has declined very much due to effective medical therapy for H pylors eradication & also reduced recurrence rate of peptic perforation,upper abdominal laparotomy for peptic perforation should be the first choice in present clinic studies.

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