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Original Article

SHORT TERM OUTCOME OF PALLIATIVE MEASURES TAKEN FOR CLINICALLY LABELED UNRESECTABLE CARCINOMA PANCREAS

MD. ABDULLAH AL FAROOQ [1], MA MUSHFIQUR RAHMAN [2], TANIA TAJREEN [3], MOHAMMAD ALI [4].

Abstract

Background: **At the time of diagnosis most of the pancreatic caner is well advanced and curative resection becomes impossible. These are labeled as unresectable carcinoma pancreas where only palliative medical or surgical measures could be done.**

Objectives: **To observe the various types of palliations with their early result.**

Methods: **This retrospective study was carried out in the department of Hepato-Biliary-Pancreatic Surgery in BIRDEM hospital, Dhaka, Bangladesh from July 2004 to June 2006. After careful check 50 patients were labeled as unresectable carcinoma pancreas. Surgical intervention was thought impossible in 10 patients and these patients took only chemotherapy. Laparotomy was carried out in the rest 40 patients with the plan to take open biopsy along with surgical palliation. Curative resection was seemed not to be possible in any patient. After abdominal exploration resectability of the pancreatic lesion was assessed and compared with prior plan. Post operative histopathology revealed pancreatic carcinoma in 35 patients. Postoperative treatment modalities used like chemotherapy, chemoradiation were assessed. Overall outcome of all the palliations were noted and compared with initial presentations.**

Result: **Among 50 patients male were 28 (n_1) & female were 22 (n_2) with male female ratio was 1.27:1. Eighty percent (80%) patients presented between 51 to 70 years of age. Preoperative plan of surgical palliation noted to be changed significantly after laparotomy. Curative resections were possible in 2 patients. No palliative surgery was possible in 2 patients with gross disease and only biopsy was taken. Palliative surgeries along with biopsy were done in 36 patients. Only biliary bypass carried out in 04 patients, choledochojejunostomy with gastrojejunostomy were performed in 18 patients and hepatico- jejunostomy with gastrojejunostomy were performed in 12 patients. Only gastrojejunostomy were carried out in 02 patients to relieve duodenal obstruction. For pain control chemical splanchnicectomy done in 07 patients.There was no perioperative mortality. Early post operative complications were wound infection in 6 (15%) patients, haemorrhage in 2 (5%) patients and bilioenteric anastomotic leakage in 1(2.5%) patient. Post operative histopathology reports revealed pancreatic carcinoma in 35 patients. After one year follow up it was noted that jaundice again developed in 02 patients (4.6%) underwent choledochojejunostomy and gastrojejunostomy. Control of pain was satisfactory in 31 patients (72.1%) by multimodal analgesia. Chemical splanchnicectomy was satisfactory in 4 (56%) patients to control pain. Twenty seven patients (54%) had died within a year. Only 16 (36%) patients were alive after one year. Seven patients (14%) had lost from follow up.**

Conclusion: **Surgical palliation along with other medical palliations is recommended for unresectable carcinoma pancreas.**

Key words: Carcinoma pancreas, Unresectable, Palliative measure.

1. Dr. Md. Abdullah Al Farooq, MBBS, FCPS, MS, Assistant professor, Department of Pediatric Surgery, Chittagong Medical College & Hospital, Chittagong, Bangladesh.
2. Dr. M A Mushfiqur Rahman , MBBS, FCPS, MS, Assistant Professor, Department of Pediatric Surgery, Chittagong Medical College & Hospital, Chittagong, Bangladesh.
3. Dr. Tania Tajreen, Medical officer, Medicine unit-III, Chittagong Medical College & Hospital, Chittagong, Bangladesh.
4. Professor Mohammad Ali, MBBS, FCPS, FRCS (Ed), FACS, Professor & Head, Department of Hepato-Biliary-Pancreatic Surgery, BIRDEM Hospital, Shahbag, Dhaka, Bangladesh.

Correspondence to : Dr. Md. Abdullah Al Farooq, MBBS, FCPS, MS, Assistant Professor, Department of Pediatric Surgery, Ward 11-B, Chittagong Medical college & Hospital, Chittagong-4000, Bangladesh, Mobile : +88-01815-002188, E-mail: farooq71bd@yahoo.com

Introduction

Cancer pancreas is the 4th leading cause of all cancer death. The peak incidence is in 5th and 6th decades of life[1].In clinical practice, pancreatice cancer is synonymous with pancreatic ductual adenocarcinoma which constitute 90% of all the malignant tumour of the gland[2]. It arises most frequently from the pancreatic ducts & most commonly in the head of the pancreas. The incidence is 70% in the head & 30% in the body and tail of the pancreas[3].

It is mandatory to have a cytological proof before the lesion is labeled as cancer pancreas because many benign conditions or treatable malignant condition (e.g. Lymphoma) simulate the features of cancer[4].

Unfortunately at the time of presentation 90-95% patients are unsuitable for curative resection because of local spread, involvement of the mesenteric lymph nodes, hepatic or distant metastasis[3].

A tumour that cannot be removed completely by surgery is called unresectable tumour[5]. But pancreatic cancer is labeled unresectable if there is distant metastasis, portal vein thrombosis (major) or circumferential encasement of celiac, hepatic or superior mesenteric artery[6].

Unresectable pancreatic cancer commonly present with weight loss, obstructive jaundice ,abdominal pain, palpable non tender gall bladder, a palpable mass, cholangitis, ascites, or metastasis[1].

Imaging studies that are helpful in detecting unresectable pancreatic cancer are Ultrasonography (USG), Endoscopic Ultrasound (EUS)[7], surgeon performed USG[8], Computerized Tomography (CT) scan[1], contrast CT scan[7], Magnetic Resonance Imaging (MRI), Magnetic Resonance Cholangio Pancreatography (MRCP)[4]. Upper gastrointestinal (UGI) series provides information about the patency of the duodenum[1]. Minimally invasive procedures like Endoscopic Retrograde Cholangiopancreatography (ERCP)[1] and Laparoscopy[7] are of great help for both diagnosis & assessment of unesectability. A sequential approach consisting of CT scan as an initial test and EUS as a confirmatory technique seems to be the most reliable and cost minimizing strategy for pancreatic cancer imaging[9].

Palliation that are done are, palliation of biliary obstruction (preoperative endoscopic or percutaneous stent)[4], choledochojejunostomy or cholecysto-jejunostomy[1].Laparoscopic biopsy, laparoscopic cholecystojejunostomy, laparoscopic gastro-jejunostomy and thoracoscopic splanchnicectomy are also possible[10].

Patient with high grade duodenal obstruction require gastrojejunostomy and modified biliary type endoluminal metallic stent for low grade obstruction[4].

Control of pain is a great problem. For pain control available options are- narcotic drugs, coeliac ganglion block, chemical splanchnicectomy (20 ml of 50% alcohol) & surgical splanchnicectomy (laparoscopic or thoracoscopic pancreatic denervation)[11].

To prevent malnutrition pancreatic enzymes should be replaced in digesting food[12].

The role of chemotherapy by 5-Flurouracil (5-FU) or gemcitabine will produce remission only in 15-25% patients suffering from duct cell adenocarcinoma having no long term cure[13]. But postoperative chemoradiation significantly improves survival[4].

Interferon based chemoradiation therapy may improve overall survival in patient with pancreatic adenocarcinoma despite high incidence of node involvement & advanced stage of the tumour[13].

Present retrospective study was carried out in Bangladesh Institute for Research & Rehabilitation in Diabetic Endocrine & Metabolic Disorders (BIRDEM) hospital to see what palliative measures were taken for clinically labeled unresectable carcinoma pancreas with the short term outcome.

Methods:

This retrospective study was carried out form July 2004 to June 2006 (study period 2 years) in the department of Hepato-Biliary-Pancreatic Surgery in BIRDEM hospital, Dhaka, Bangladesh. Hospital records were evaluated but inadequate and incomplete patients' files were not considered for the study. Sixty two (62) patients were recorded to have histopathologically proved pancreatic cancer. As per BIRDEM protocol, clinical criteria set to say unresectable carcinoma pancreas were palpable mass, ascites, back pain. Laboratory findings accepted to declare irresectable carcinoma pancreas was high CA-19-9. Imaging modalities used were US, CT scan, MRI, ERCP, MRCP, UGI series. Laparoscopy was not done in any patient. No patient was taken for the study without cytologic proof of malignancy. After careful review of clinical findings, laboratory investigations, imaging and histopathological studies fifty patients were labeled as unresectable carcinoma pancreas (sample size n-50). It was noted that union international contra Le cancer (UICC) staging system were adopted for staging of pancreatic cancer staging (stage I- IV). Initial key symptoms, signs along with laboratory test were noted. Among 50 unresectable carcinoma

pancreas it had been decided not to carry out any surgical intervention in 10 pancreatic cancer patients as there was distant metastasis in 4 (08%) patients, locally advance disease in 3 (06%) patients and 3 (06%) patient had very poor general condition to withstand surgery. These patients took only 5- FU chemotherapy along with other non surgical palliative measures as analgesia nutritional support etc.

Laparotomy was carried out in the rest 40 patients with the plan to take open biopsy along with surgical palliation and postoperative 5-FU chemotherapy or chemoradiation. None of this patient receieved preoperative chemotherapy.

Before laparotomy dehydration was corrected and adequate hydration was ensured by intravenous fluid on the day before surgery. Bowel preparation was carried out. Anaemia was corrected and abnormal coagulation was rectified. Combination antibiotics were used in patient having cholangitis. Nutritional correction was tried. Jaundice was relieved before laparotomy by biliary stent in 12 (30%) patients. Stenting were done either by endoprosthesis (09 patients, 22.5%) or by transcutaneous perhepatic technique (3 patients, 07.5%). Prophylactic antibiotic was given to cover operation. After abdominal exploration resectability of the pancreatic lesion was assessed. Pancreas was then palpated for the site of the lesion and its mobility assessed. Location of the tumour with fixity, local extension, contagious organ involvement, vascular invasion, liver involvement, nodal involvement, peritoneal involvement, mesenteric invasion etc. were assessed. Involvement of biliary tree and duodenum was checked. Plan of palliative surgery reconsidered. Whether preoperative surgical plan had changed after exploration was noted. All the patients were managed in general surgical ward and no patient needed Intensive Care Unit (ICU) admission. Early post operative care included nothing per orally, nasogastric drain, intravenous hydration, perenteral nutrition, perenteral antibiotic, H_2 blockers, analgesic early ambulation and pulmonary toilet. Abdominal drain was kept for 3-4 days and amylase activity of the drain fluid was checked before removal. Histopathological report of the post laparotomy-collected specimen had showed that 35 patients had suffered from pancreatic carcinoma and 05 patients had other lesion. After recovery from the early operative morbidity all the pancreatic cancer patients (35 patients) got further enteral nutritional support along with pancreatic enzyme supplement.

Postoperative treatment modalities used like chemotherapy, chemo radiation with other palliative measures were evaluated.

Patient was followed up at 1 month, 3 month, 6 month, 9 month and one year after medical or surgical palliation. During each follow up it was noted that patient was evaluated for control of pain, relief of jaundice, relieve of fever, weight gain, tumour size, improvent of UGI obstructive symptoms and survival. All were compared with initial presentation. Biochemical parameters like Serum billirubin (S.bilirubin), alkaline phosphatase (Alk.P) and Prothrombin time (PT) were done with complete blood count (CBC) and tumour marker were also done and compared with previous report. CT scan was done in the entire patient to asses tumour size. MRCP done in 2 patients with jaundice. Data were processed and analyzed. Chi-square ($\div^2$) test was applied to show the significance in difference between observed & expected value (qualitative), p-value < 0.01 was taken as significant.

Result

Sex distribution: Among 50 patients male were 28 (n_1) & female were 22 (n_2). Male female ratio was 1.27:1.

Age distribution: Patients most commonly presented between the ages of 56-60 years (16 patients, 32%) and 45-50 years (2 patients, 4%) is the least common age of presentation. Overall common age of presentation is in between 51 to 70 years of age (80%).

Initial presentation of the patients with laboratory findings: (n=50)

Patient most commonly presented with obstructive jaundice (36 patients 72%). Next common modes of presentations were vomiting (30 patients 60%), abdominal pain (27 patients 54%), palpable mass (21 patients 42%), fever due to cholangitis (11 patients 22%) and weight loss (10 patients, 20%). Total leukocyte count was raised with neutrophilia in 16 (32%) patients. S. bilirubin were elevated in 38 (76%) patients, Alk.P found elevated in 30 (60%) patients and PT were also raised in 17 (34%) patients. Tumour markers also found to be raised. Carbohydrate antigen 19-9 (CA 19-9) was raised in 29 (58%) patients & Carcinoembryonic antigen (CEA) were raised in 32 (64%) patients.

Table I

Clinical presentation of the patients with laboratory findings

Clinical features and laboratory tests	Number of patients with percentage (%)
Obstructive jaundice	36 (72%)
Vomiting	30 (60 %)
Abdominal pain	27 (54%)
Palpable abdominal mass	21 (42%)
Fever due to cholangitis	11 (22%)
Weight loss	10 (20%)
Raised- *Neutrophilic leukocytosis*	16 (30%)
S. bilirubin	38 (76%)
Alk. P	30 (60%)
PT	17 (34%)
CA 19-9	29 (58%)
CEA	32 (64%)

Preoperative management plan: Jaundice was relieved before laparotomy by biliary stent in 12 (30%) patients (endoprosthesis 09 patients and by transcutaneous perhepatic technique 3 patients). No biliary or duodenal obstruction were noted in 4 patients. It was planed to take only open biopsy in these 04 (10%) patients. Six patients (15%) found to have obstructive jaundice with patent supraduodenal part of common bile duct (CBD) and choledocho-jejunostomy were the primary paln. For 13 patients (32.5%) choledochojejunostomy with gastrojejunostomy were the proposed palliation as they had both biliary obstruction in the lower CBD and duodenal obstruction. Sixteen patients (40%) had duodenal obstruction along with malignant involvement of the whole CBD with surgical jaundice. Common hepatic ducts were free of disease. Hepaticoojejunostomy with gastrojejunostomy were the plan of palliation of these patients. One (2.5%) patient had only duodenal obstruction but non icteric and only gastrojejunostomy was the choice of palliation in this patient. Curative resection was seemed not to be possible in any patients.

Table II

Preoperative management plan.

Plan	Number of patients (%)
Endoprosthesis	09 (22.5%)
Stent by transcutaneous perhepatic technique	03 (07.5%)
Open biopsy only	04 (10%)
Only Choledochojejunostomy	06 (15%)
Choledochojejunostomy with gastrojejunostomy	13(32.5%)
Hepaticojejunostomy with gastrojejunostomy	16 (40%)
Only gastrojejunostomy	01 (2.5%)

Peroperative findings and management : Among these 40 patients most of the lesions involved head of the pancreas (34 patients, 85%) then body of the organ (4 patients, 10%) and tail was the least area of involvement (2 patients, 5%). Thirty eight (95%) lesions were unresectable. Only two (5%) lesions were found to be resectable where Whipple's operations were performed and the specimen sent for histopathological examination. Biopsy were taken from all pancreatic lesions, local involved organ, involved lymph node, the mesentery, liver involvement, vascular invasion and peritoneal seedling. In some patient multiple biopsies were taken so total number of biopsies is more than patients underwent laparotomy. No biliary or duodenal obstruction was noted in 2 (5%) patients and only open biopsy was done. Four patients (10%) found to have obstructive jaundice with patent supraduodenal part of common bile duct (CBD) and choledocho-jejunostomy was done. Eighteen patients (45%) had both biliary obstruction in the lower CBD and duodenal obstruction. For these patients choledo-chojejunostomy with gastrojejunostomy were carried out. Twelve patients (30%) had duodenal obstruction along with malignant involvement of the whole CBD. Common hepatic ducts were free of disease. Hepaticoojejunostomy with gastrojejunostomy were the surgical palliation. Two (5%) patient had only duodenal obstruction but biliary trees were free and only gastrojejunostomy was done. In a two very grossly advanced disease it was possible only to take biopsy, no palliative surgical procedure was attempted. Chemical splanchnicectomy were possible in 7 (17.5%) patient.

Table III
Peroperative management.

Open biopsy from	40 (100%)
Pancreatic lesion	*38 (95%)*
Resected specimen	02 (05%)
Local involved organ	13 (32.5%)
Involved lymph node	12 (30%)
Mesentery	05 (12.5%)
Liver involvement	05 (12.5%)
Vascular invasion	05 (12.5%)
Peritoneal seedling	*08 (20%)*
*** Only biopsy was taken from 2 grossly advanced as no palliative surgical procedure was possible***	
Only Choledochojejunostomy	04 (10%)
Choledochojejunostomy with gastrojejunostomy	18 (45%)
Hepaticojejunostomy with gastrojejunostomy	12 (30%)
Only gastrojejunostomy	02 (05%)
Chemical splanchnicectomy	07 (17.5%)

Early post operative complication (within a month): There was no preoperative or immediate mortality. Wound infection was noted in 6 patients (15%) but no patient presented with septicaemia. Haemorrhage was noted in two (5%) patients. In one (2.5%) patient anastomotic (choledochojejunostomy) leakage had occurred.

Table IV
Early post operative complication (within a month).

Complication	Number of patients (%)
Wound infection	06 (15%)
Haemorrhage	02 (05%)
Anastomotic leak-	
Bilioenteric leakage	01 (2.5%)
Enteroenteric leakage	00 (00%)
Septicaemia	00 (00%)
Acute myocardial infarction	00 (00%)
Gastric obstruction	00 (00%)
Death	00 (00%)

Management after laparotomy (n=35): Post laparotomy samples showed 35 lesions are pancreatic cancer and 5 are other lesion. All the pancreatic cancer patients (35 patients) got nutritional support, analgesia etc. They received either full cycle chemotherapy (27 patients) or chemoradiation (8 patients). So total 37 patients (27 plus 10 patients having no surgery) received full course chemotherapy only.

Follow up (up to one year, n=45): Total number of unresectable pancreatic cancer patient were 45 (10+35) as post laparotomy specimen showed 5 patients having different lesions. All the 45 patients (100%) attended follow up clinic for the first 03 months. Seven patients (15.56%) were lost from the follow up after 03 months. 38 patients (84.44%) were on regular follow up till one year. Jaundice again developed in 02 patients (5.26%) with choledochojejunostomy and gastrojejunostomy. These patients had raised S. bilirubin, Alk.P and PT. No patient developed features of gastric outlet obstruction like vomiting after bypass. Nine patients (28%) gained significant weight where gastric bypass were carried out. Overall 20% patient gained weight. Fever due to cholangitis developed in 03(6.66%) patients with neutrophilic leukocytosis in all of them. These are the patients where choledochojejunostomy and gastrojejunostomy had done. During follow up only CT scan was done to assess tumour size. Tumour size noted to be reduced in 1 (10%) patient treated exclusively with chemotherapy. Post surgical patients who took chemotherapy showed significant decrease of tumour size in 3 (11%) patients. Chemoradiation was effective in 1 (12.5%) patients to reduce tumour size. Troublesome complication of chemotherapy that was noted, bone marrow depression (one patient, 10% in only chemotherapy group and 2 patients, 13.8% in surgery and chemotherapy group). One patient (12.5%) suffered from dermatitis who received post surgical chemoradiation. Control of pain was satisfactory in 13 patients (48.8%) by multimodal analgesia. Chemical splanchnicectomy was satisfactory in 4 (56%) patients to control pain. Pain control was achieved in 17 (13+4) patients which is 63% of patients (27patient) presented with pain. Twenty seven patients (71%) had died within a year and only 11 (19%) patients were alive after one year excluding 7 lost patients.

Table V

One year follow up.

Parameter	Result
Patient attended up to one year	38 (84.44%)
Jaundice	02 (5.26%)
Pain control by	
- *Analgesia*	13 (48.8%)
- *Chemical splanchnicectomy*	04 (56%)
Vomiting due to gastric outlet obstruction	00 (0%)
Weight gain	09 (20%)
Fever	03 (6.66%)
INV	
Neutrophilic leukocytosis	03 (6.66%)
S. bilirubin	02 (5.26%)
Alk.P	02 (5.26%)
PT	02 (5.26%)
CA 19-9	31 (68.88%)
CEA	34 (75.55%)
CT scan- Decrease tumour size	
No surgery, only chemotherapy (10 patients)	
01 (10)	
Post surgical chemotherapy (27 patients)	*03 (11%)*
Post surgical chemoradiaion (08 patients)	01 (12.5%)
Complication due to Chemotherapy/ Chemoradiation	
No surgery, only chemotherapy (10 patients)- bone marrow depression	*01 (10%)*
Post surgical chemotherapy (27 patients)- bone marrow depression	*02 (7.4%)*
Post surgical chemoradiaion (08 patients)- dermatitis	*01 (12.5%)*
Death (mortality)	27 (71%)
One year survival	11(19%)

Discussion

The incidence of pancreatic cancer has back tripled over the last 40 years through out the west[2]. The incidence of pancreatic cancer is 10 per 100,000 per year. According to Russel pancreatic cancer affects male and female to the same degree[3]. Male to female ratio has been decreased in the recent years suggesting that more women are now being diagnosed with this cancer[2]. Present study showed that male (28 patients) are affected more than the female (22 patients) and male female ratio was found 1.27:1. As like our study, Yeo and Cameron also noted that male sex is more vulnerable to pancreatic cancer[4].

Pancreatic cancer is a disease of aging[3]. The peak incidence is 5th and 6th decades[1].Present study also supports it. Out of 50 studied patients (n = 50), 40 patients (80%) presented between 51-70 years age. Only 2 patients (4%) were diagnosed between 45-50 years of age and it is the least common age of presentation. No patient was diagnosed before 45 years of age.

Findings contraindicate for curative resection are liver meatastasis, celiac lymph node involvement, peritoneal implant, invasion of transverse colon and hepatic hilar lymph node involvement. Invasion of duodenum or distal stomach, involved peripancreatic lymph node and involved lymph node along porta hepatic that can be swept down along with the specimen does not contraindicate curative resection[14].

Significant change in management noted during laparotomy as compared to preoperative plan. Curative resection was thought not to be possible in any patient but after exploration 2 patients (5%) underwent curative resection. Only choledochojejunostomy was carried out in 04 (10%) patients which was significantly less (p value < 0.01) than prior plan where 06 (15%) patients were planned for biliary bypass only. In a study it is noted that 7.9% patients need only biliary bypass[15]. In 2 patients (5%) only biopsy, was taken without any palliative surgical procedure. It was significantly lower (p value < 0.01) than the previous assumption for 04 (10%) patients where no other option was thought to be feasible except biopsy. Choledochojejunostomy with gastrojejunostomy planned in 13 (32.5%) patients, but done in 18 (45%) patients which is significantly more (p value < 0.01). Hepaticojejunostomy with gastrojejunostomy were performed in 12 (30%) patients but planned in 16 (40%) patients which was significantly lower than the proposed plan (p value < 0.01). Both biliary and enteric bypass rate is much higher (39.7%) in a prior study[15]. Only gastrojejunostomy were carried out in 02 (5%) patients that were 2 times than the preoperative plan (1 patient, 2.5%). Only gastrojejunostomy were done in 2.73% patient as shown by Rooij, Bernnan and Rocardo[15].Chemical splanchnicectomy done in 07 (17.5%) patients which was not planned before. Test of significance were not possible for curative resection, only gastrojejunostomy and chemical splan-chnicectomy as small in number. But simple observation reveals that surgical plan had been changed in these procedures. No laparoscopic palliative surgery was carried out.

Common postoperative complications of pancreatic surgery are haemorrhage, anastomotic leakage (bilioenteric or enteroenteric), sepsis, myocardial infarction and hepatorenal failure[2]. In our series there was no preoperative, peroperative or immediate postoperative mortality. Wound infection was the most common early postoperative complication (6 patients (15%) but no patient presented with septicaemia. Wound infections were managed by local wound care and appropriate antibiotics. Haemorrhage, as seen on abdominal drain were noted in two (5%) patients and treated conservatively. In one (2.5%) patient where choledochojejunostomy was done, anastomotic leakage occurred due to disruption of a stitch. The patient needed relaparotomy, abdominal toileting and closure of the leak. This patient had recovered. No enteroenteric leak noted. After surgery no patient had suffered from acute myocardial infarction or gastric obstruction.

Most of the patients (84.44%) were regular on attending the follow up clinic till one year. Twenty seven (60%) patients died within 1 year. Jaundice again developed in 5.26% patients but it is significantly lower than initial 72% patients after biliary diversion. There were no obstructive UGI symptoms as any patient developed gastric outlet obstruction after bypass. So all gastric bypass is a good short term palliation for UGI symptoms. Chemoradiation along with surgical palliation seems to be little more effective (12.5%) in reducing the tumour size than chemotherapy alone (10%-11%). Troublesome complication of chemotherapy that was noted was bone marrow depression (7.4% - 12.5%). Dermatitis was the commonest complication of post surgical chemoradiation (1 patient, 12.5%). Niki T et al. noted no lethal side effects after 5- FU based chemoradiation and found 13% success rate and concluded that it is well tolerated and have definitive benefit[16]. Control of pain was satisfactory in 13 patients (48.8%) by multimodal analgesia. Multimodal analgesia seems to be moderately effective in controlling pain (13 patients, 48.8%). Efficacy of chemical splanchnicectomy in controlling pain was satisfactory in 56% patients in the present series. Overall pain control was achieved in patients which is 63% of patients. Lillemore, Cameron and Kaufman et al. showed that intraoperative chemical splanchnicectomy with alcohol significantly reduce or prevents pain in patient with unresectable pancreatic cancer[17].

Even with all probable measures, overall prognosis of advanced pancreatic cancer is very poor. Five year survival for UICC stage III disease is 10%-15% and for stage IV disease is only 0-8% [4]. Rooij, Bernnan and Rogatoko showed that hospital mortality of such patient after surgery is 4.4% and median survival is only 231 days[15]. In the present study, after one year only 11 (19%) patients were alive and 27 patients (71%) had died and supporting graveness of the disease as shown by others.

Conclusion

Although the outcome of palliative measures for unresectable carcinoma pancreas is still poor but palliative measures taken appropriately can reduce patients' sufferings. Management strategy should be changed accordingly after laparotomy to gain better outcome in these patients. Overall outcome regarding survival is still frustrating. Surgical morbidity and complications seems to be negligible and palliative surgery is recommended where possible.

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