Our Clinical Experience With Cancer Surgery in the Elderly at Assam Medical College & Hospital, Dibrugarh, Assam

Medical Science

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ABSTRACT

BACKGROUND: Elderly population is rising and so are people living with cancer. Should we be aggressive in surgical resections is the question of the hour.
OBJECTIVE: To study incidence, sex, age distribution, diagnostics, treatment modality, prognosis of geriatric population with cancer.
MATERIALS AND METHODS: A prospective study in department of general surgery with carcinoma (n=273) over 3 years.
RESULTS: Almost 84.3% of advanced gall bladder carcinoma have survival of 9.7 months. In colorectal carcinoma, patient survival of stage1-88%, stageII-72%, stageIII-48%, stageIV-2%. Mean 3 year survival for early, locally advanced and metastatic breast carcinoma is 78%, 18.7, 3.4 months respectively. In carcinoma stomach survival was 60% for locally advanced, 5% for metastatic.
CONCLUSION: Surgeons dealing with geriatric cancers should not discriminate patients based on chronological age. Patients should be well optimised before resections to achieve similar survival rates as for the rest of population.

Introduction:

The incidence of cancer is rising among older population and with the advent of strides in medical diagnostics and treatment, the longevity of population is increasing, causing greater cancer prevalence in elderly survivors.[1][2][3]. In USA, 50% of all malignancies occur in age group of 65-95.

Our centre being one of premier centres in India with unique geographical location in Upper Assam catering to the needs of not only Assam but also of adjoining sister states reflects the trend of the whole North East Region.

Aims and Objectives: To study the incidence, diagnostic tools, staging, treatment modality and prognosis of geriatric population admitted at AMCH, Dibrugarh.

Materials and Methods:

All admitted geriatric patients 60 years and above with confirmed diagnosis of carcinoma and admitted in department of general surgery (n=273) over a 3 year period and followed up.

Data was analysed using SPSS Software version 16.0.

Results:

For the purpose of analysis geriatric patients were divided into 2 groups - (1) geriatric: with age ≥ 60 but < 75 years (2) elderly geriatric: with age ≥ 75 years.
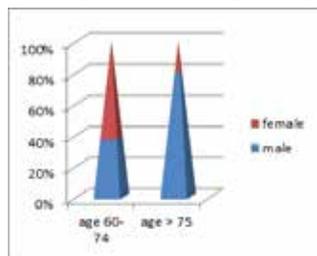

Figure: 1 age and sex representation

Gall Bladder Cancer: constitutes 20.8%(n=57) of all oncological admissions to surgical department which is also the annual hospital based incidence of the disease. Majority of these patients belonged to age group 60 -75 years (n=51)(89.4%)Out of these 88.2%(n=45) were females. Only 6(10.6%) patients belonged to elderly geriatric group with sex distribution being equal in males and females. This group constituted highest incidence among all cancers. The histopathology reported in about 90% of specimens is adenocarcinoma while rest 10% constituted small cell carcinoma and squamous cell carcinoma. Almost 84.3% of cases were either TNM stage III or IV in whom complete surgical control of the disease was not possible and were started on cisplatin +gemcitabine based regimen with mean survival of 9.7 months. Among this group 5 patients underwent palliative bilioenteric bypass. The other 4 patients were T1a in whom cholecystectomy done for calculus cholecystitis sufficed, with additional port site excision and chemotherapy in three patients having 2 year disease free survival while one patient had tumour metastasis in peritoneum with survival of just 7 months.

The rest of 5 cases were TNM Stage Ib or II. 2 cases underwent extended cholecystectomy with hepaticoduodenal lymphadenectomy while another 2 cases underwent left hepaticojejunostomy with extended cholecystectomy with CBD excision and 1 case underwent 4b,5 segmentectomy with hepaticojejunostomy. All cases received 6 cycles of cisplatin+ gemcitabine combination regimen with survival of 11 months.

Colorectal Carcinoma: The annual hospital based incidence is 15.3% with total 42 patients observed over 3 year study period. Majority of patients belonged to age group 60- 74 years- 85.7%(n=36) with male female ratio being 1:2 . Six patients (14.3%) belonged to elderly geriatric group and all being females were nonoperable with stage IV disease with nonobstructive symptoms.They were started on FOLFOX regimen with mean survival of 15 months. 70%(n=26) underwent abdominoperineal resection with

– colostomy(55%) or low anterior resection (20%)or right hemicolectomy(4%) or left hemi colectomy(14%) or proctocolectomy with ileocolic anastomosis (3%)followed by chemotherapy(FOLFOX/CAPEOX). Until the time of reporting, survival of stage 1 disease is 88%, stage II 72%, stage III 48%, stage IV 2%. For patients presenting with acute obstruction, emergency colostomy was done.

Breast Carcinoma: A total of 36 (13.1%)patients presented to our out patient and emergency department out of which 30(83.3%) belonged to age between 60 and 75 years while rest 16.7% were ≥ 75 years. All patients were females. 12.6% had early breast carcinoma while 70.2% were locally advanced. The remaining 17.2% had metastatic disease at diagnosis. Modified Radical Mastectomy was performed for early / locally advanced breast carcinomas + axillary dissection with level I/II/III nodal clearance as deemed necessary. All cases were given chemotherapy (CAF Regimen for 6 cycles followed by oral tamoxifen for 5 years in cases of ER/PR +VE or paclitaxel based chemotherapy in Her-2-neu positive or recurrence). Mean 3 year survival for early breast carcinoma is 78% while for locally advanced is 18.7 months and for metastasis 3.4 months.

Stomach Cancer: Hospital based incidence is 11.1%(33) with most cases belonging to early geriatric age group(90.9%)(30). Male female ratio was 4:1. Endoscopic biopsy with CT Scan were cornerstone for diagnosis. Most of the cases presented with Gastric Outlet Obstruction with locally advanced disease belonging to stage II or III and were treated with subtotal gastrectomy with D1 lymphadenectomy with BILLROTH II loop gastrojejunostomy or Roux-en-Y gastrojejunostomy. Follow up chemotherapy was with cisplatin+epirubicin+5-FU. 1 patient having involvement of cardia and lower oesophageal sphincter underwent esophagogastrectomy with jejunal interposition . Majority of cases were adenocarcinomas (78%) while uncommon histology was of GIST (11%). The survival of patients until the time of reporting were 60% with locally advanced disease while only 5% for metastatic disease.

Esophageal cancer: Total number of cases encountered over 3 years of study period are 30 (10.3%) with almost 90%(27) belonging to age group 60-74 while 10% ≥ 75 years. While 8(28%) of patients underwent surgical excision with chemoradiotherapy mostly belonging to stage I &II ,most of the patients presented late in stages III/IV and were managed by chemoradiotherapy (cisplatin/etoposide+5FU, >60 Gy) and feeding jejunostomy(Witzel). Median survival for SCC histology was 12.4 months who underwent surgery and 14 months who were offered complete chemoradiotherapy alone but incidences of dysphagia were greater in follow up with chemoradiotherapy patients with complete eradication of disease in 20% of early dysplastic lesions. Patients with adenocarcinoma had mean survival of 14.8 months in surgery + chemotherapy patients.

Cholangiocarcinoma: Hospital based incidence is 5.4% (15) with 60 % in age group 60-74 years with female predominance. Most of the cancers were perihilar(60%) followed by distal (35%) and peripheral (5%). Only 2 cases were operable. 1 with distal CBD growth underwent pancreaticoduodenectomy while another with growth involving CHD bifurcation underwent resection of CBD with Roux-en-Y end to side hepatico jejunostomy with separate implantation of left and right hepatic ducts over silastic catheters through jejunum with hepatoduodenal and hepatogastric lymphadenectomy. The mean three year survival with negative margin is 68% while one patient who underwent pancreaticoduodenectomy is still surviving till date.

In patients with unresectable disease, mean survival with gemcitabine+cisplatin therapy is 8.2 months.

Periampullary carcinoma: 12(4.3%) patients came with periampullary ca of which 9(75%) were early geriatric group while rest 3(25%) were late geriatric. Pancreaticoduodenectomy could be done in only 4 patients who were resectable with R0 resection achieved followed by chemotherapy. Out of 4 , survival rate is 50% after three years. While other 8 patients had locally advanced or metastatic disease were administered chemotherapy with mean survival rate being 5.7 months.

CARCINOMA	AGE GROUP 60-74 YEARS		AGE GROUP ≥ 75 YEARS		Total
	MALE	FEMALE	MALE	FEMALE	
Esophagus	15	12	3	0	30
Stomach	24	6	3	0	33
Gall Bladder	6	45	3	3	57
Cholangiocarcinoma	3	6	3	3	15
PeriAmpullary	3	6	3	0	12
Small Intestine	0	0	0	0	0
Colo Rectal	12	24	0	6	42
Anal	0	3	3	0	6
Melanoma	3	3	0	0	6
Renal	6	0	0	0	6
Prostate	3	0	0	0	3
Bladder	6	9	0	6	21
Penile	3	NA	0	NA	3
Breast	0	30	0	6	36
Hepatic	3	0	0	0	3
Total	87	144	18	24	273

Circled numerals indicative of relative frequency in that group

Table1: *distribution of various carcinomas based on age and sex.*

Discussion:
Carcinoma Gall Bladder was highest in number. Looking at sex wise break up of carcinomas we find relative incidence in decreasing order as gall bladder carcinoma, breast and colorectal. But in males the highest relative incidence is stomach followed by oesophagus and then colorectal.

In gall bladder cancers the female are affected more than males but as age increases the ratio becomes 1 i.e.in elderly geriatrics males are affected more than those of younger age groups. Further none of the histology were sarcoma or lymphoma indicating either their early age of presentation before 60 years or high fatality. This is a disease of dismal prognosis and most of the cases presenting late with metastasis where surgical R0 resections are not feasible hence role of surgery is largely palliation from obstructive jaundice.

Fifty percent of breast cancers occur after the age of 65 years and 25% after the age of 75 years [6].Our understanding about breast cancer treatment in elderly is mainly based on retrospective and observational studies and on very few randomised clinical trials [7].Surgery is the main stay of treatment for early breast cancer independent of age and was the usual therapy for all ages till 1970s [8][9].

None of the breast cancer patients were males and majority of patients turning up with locally advanced disease with breast conservation is not feasible and Modified Radical Mastectomy is the only surgical option available. Response to chemotherapy is variable with prognosis being dismal other than for early breast carcinoma.

Colorectal cancer affects more females than males. Until the

time of reporting, survival of stage 1 disease is 88%, stage II 72%, stage III 48%, stage IV 2%.

Several other types of cancer were found including prostate, renal, urinary bladder, penile, liver and melanoma.

Conclusion:

After analysing survival data of patients we come to the conclusion that there is delay in contact of the patient with health provider which further points to need of effective screening programs in community. Majority of geriatric patients with breast carcinoma present with advanced disease, hence breast self examination is a simple tool which needs to be further publicised and correct method demonstrated. Further procedures on elderly are not without risk owing to diminished physiological reserve, susceptibility to metabolic derangements, malnutrition and co morbidities. We must not be overzealous with surgery and correction of physiological derangements must be achieved. Surgeons will have to deal with geriatric cancers. Just to discriminate patient based on chronological age is uncalled for.

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