MALIGNANT OVARIAN TUMOUR – AN ANALYSIS OF 50 CASES

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SUMMARY

Fifty cases of malignant ovarian tumour registered at Dr. B. Borooah Cancer Institute for treatment are presented here. Highest number of patients (32%) presented in the 5th decade of life. Seventy percent of patients had more than two children. Forty two percent cases constituted stage III & IV disease. In 34% of cases staging was not known. Thirty eight percent patients underwent total abdominal hysterectomy and bilateral salpingo - oophorectomy as initial surgical treatment. Thirty four out of 50 cases took some form of adjuvant therapy. Twelve cases (35%) completed treatment with a median disease free survival of 15 months. Four patients developed relapse.

Out of 31 patients treated with adjuvant chemotherapy, 11 patients (35.4%) discontinued treatment after 3 or more cycles. In this group 6 patients achieved complete response with a median follow-up of 9 months. One patient showed partial response and one developed progressive disease. Three cases were lost to follow-up.

Relapse rate in cisplatin and non-cisplatin based combination chemotherapy were 16.6 and 66.6 percent respectively.

INTRODUCTION

Ovarian cancer remains an enigmatic disease often presenting in an advanced stage with little in the way of symptoms to warn either the patient or the doctor of its onset. It accounts for 25% of all gynaecological cancers in the West. However, it accounts for about 47% of all deaths due to genital cancer (Barber,

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1980). The disease is 3 to 5 times more prevalent in women of European and American origin than in those of Asian or African origin.

The introduction of cisplatin in 1976 in the management of adjuvant therapy has made a radical change in the prognosis of ovarian cancer. In this study an attempt has been made to evaluate the response of adjuvant treatment with different chemotherapeutic regimens and radiotherapy.

MATERIALS AND METHODS

Fifty cases registered for treatment at Dr. B. Borooah Cancer Institute, Guwahati from 1.10.88 to 1.3.91 are presented. Most of the patients received primary surgical treatment outside. All were thoroughly evaluated. They were subjected to different chemotherapeutic regimens as follows : Regimen A. Cyclophosphamide 600 mg/m^2 + 5-Fluorouracil 600 mg/m^2 + Methotrexate 40 mg/m^2. The cycle repeated at 3 weekly interval. Regimen B. Cisplatin 100 mg/m^2 + Cyclophosphamide 600 mg/m^2. Cycle repeated 4 weekly interval. Regiman C. Cisplatin 100 mg/m^2 + Adriamycin 40 mg/m^2 + Cyclophosphamide 600 mg/m^2. Repeat 4 weekly. Regimen D. Cyclophosphamide 2000 mg/m^2 I.V. single dose. Repeat 3 weekly. Regimen E. Bleomycin 15 mg/m^2 Day 2, 9, 16, VP-16 mg/m^2 Day 1 to 5, Cisplatin 20 mg/m^2 Day 1 to 5.

Response to treatment criteria were as follows : Disappearance of all evidence of gross disease for atleast 4 weeks, is called complete response (CR). Partial response (PR) is 50% or greater reduction in the perpendicular diameters of each measurable lesion and no new lesions for atleast 1 month. No change (NC) is defined as less than 50% decrease or 25% increase in measurable disease and no new lesions for at least 1 month. Progressive disease (PD), 25% or greater increase or appearance of any new lesion within 1 month of initiation of therapy.

RESULTS AND OBSERVATIONS

Highest number of patients (32%) presented in the 5th decade of life (Table I).

Most of the patients were multiparous in Table II.

Most of the patients had advanced disease (Table III). In large number of patients accurate staging was not known. There were 7 unexplored cases.

Out of 29 cases where exact information was available, the tumour was one of the right ovary in 19 cases, on the left ovary in 5 cases and bilateral in 5 cases. Out of 50 cases, 7 were not suitable for surgery due to advanced disease and poor general health. Most of the patients (38%) had total abdominal

Table I

Age distribution

Age	No. of Patients	Percentage
Upto 20 years	6	12
21 - 30 years	5	10
31 - 40 years	8	16
41 - 50 years	16	32
51 - 60 years	8	16
Above 60 years	7	14

Table II

Parity-wise distribution

Age	No. of Patietns	Percentage
0	8	16
1 - 2	7	14
3 - 4	15	30
5 and above	20	40

Table III

Stage distribution of cases

Age	No. of Patietns	Percentage
I	2	4
II	3	6
III	18	36
IV	3	6
Not Known	17	34
Unexplored	7	14

Table IV

Distribution of operative procedures

Operative procedure	No. of Patietns
TAH + BSO + OT	2 (4%)
TAH + BSO	17 (34%)
BSO	5 (10%)
USO	12 (24%)
Partial Resection	1 (2%)
Laparotomy Biopsy	5 (10%)
Laparotomy without Biopsy	1 (2%)
Unexplored	7 (14%)

TAH = Total abdominal hysterectomy;
OT = Omentectomy;
BSO & USO = Bi and Uni-lateral Salpingo-ooophorectomy.

hysterectomy with bilateral salpingo - oophorectomy. (Table IV).

Histopathological types of the tumours are shown in Table V. WHO classification cannot be followed here as in some cases histopathology slides from outside were not available for review. Out of 7 unexplored cases, in 5 FNAC confirmation was done.

Thirty four patients out of fifty took some form of adjuvant treatment. Of them, only 12 (35%) completed prescribed treatment, the results of which are shown in Table VI.

Four patients developed relapse after variable period of complete response (CR). One patient died 14 months after complete clinical response. Remaining 3 developed relapse after 6, 18 and 28 months of CR. All four cases that relapsed belonged to stage III. One patient died few days after completing radiotherapy.

Out of 11 patients with CR, 2 under-

Table V

Histopathological types

Tumour histology	No. of Patietns
Papill. Cystadeno Ca	14
Serous Papill. Ca	6
Serous Cystadeno Ca	6
Adenocarcinoma	10
Mucinous Cystadeno Ca	4
Dysgerminoma	2
Endodermal Sinus T.	1
Imm. Teratoma (Solid)	1
Granulosa Cell T.	1
Poorly Diff. Ca	1
Not known	2

Table VI

Results of completely treated patients

Total No. Pts. treated with some adjuvant therapy - 34 cases		
Total No. Pts. treated with adjuvant Chemotherapy - 31 cases		
Treatment completed	-	12 (35%)
Median DFS	-	15 months
Longest DFS	-	66 months
Relapse	-	4 cases

DFS = Disease Free Survival.

Two patients treated with pelvic radiotherapy after TAH + BSO are still alive at 56 and 66 months. Eleven cases discontinued treatment after 3 or more courses of Chemotherapy, results, of which are shown in Table VII.

Results of treatment of cisplatin and non-cisplatin based combination chemotherapy are shown in Table VIII.

DISCUSSION

Many factors influence the prognosis of ovarian cancer. Patients with no residual disease than 1 to 2 cm. in diameter survives longer on chemotherapy (Wharton and Herson, 1981). Numerous studies using cisplatin based combination chemotherapy have reported high response rate (Bruckner et al, 1981; Yakushisi, 1987).

In the present series highest number of patients (32%) presented in the 5th decade of life whereas Parikh and Pinto (1989) had found 33.3% of their patients in the 6th decade. In a study of 258 cases of ovarian cancer, Strambrovskia and Siparov 1982 showed that stage III and IV are diagnosed in 71.3% of the cases.

Table VII

Results of incompletely treated patients

Adjuvant Chemotherapy	31 cases
Treatment discontinued after 3 cycles	11 cases (35.4%)
NED at last follow-up	6 cases
Median follow-up duration	9 months
PD (Progressive disease)	1
PR (Partial response)	1
LTF (Lost to follow up)	3

NED = No Evidence of disease

Table VIII

Response of cisplatin & non-cisplatin based chemotherapy

Age	No. of Patients (N)	Relapse-N (%)
Cisplatin based	12	2 (16.6%)
Non-cisplatin based	6	4 (66.6%)

went second look laparotomy. Both were histologically negative at second look. One patient is still alive disease-free at 32 months. The other developed recurrence after 28 months of CR.

In our series 42% cases constituted stage III and IV disease; however in 34% cases staging was not known.

Piver et al (1976) had reported TAH + BSO as initial surgical procedure in 45.3% of cases as against 38% in our series. In the present study CR was seen in 73% of patients treated with 3 or more cycles of chemotherapy. Gopal et al (1985) reported 75% CR with a median disease free survival of 12 months. Vogol et al (1983) and Williams et al (1982) achieved 93 and 80 percent overall response rate with cisplatin based combination respectively. Our study shows 16.6% relapse with cisplatin and 66% relapse with non-cisplatin based combination chemotherapy.

CONCLUSION

Initial adequate surgery in the form of total abdominal hysterectomy with bilateral salpingo - oophorectomy followed by cisplatin based combination chemotherapy gives better complete response rate with longer median disease free survival.

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