

surgery in the IDS group. Patient who received paclitaxol + carboplatin as first line chemotherapy had better survival than carboplatin alone or cyclophosphamide + cisplatin.

Conclusion: NACT as an alternative option to primary debulking surgery in operable EOC is still debatable. But for patient with high disease burden where optimal cytoreduction is not possible NACT strategy is a valid option. Recent randomised controlled trials from Europe had shown the noninferiority of neoadjuvant chemotherapy followed by IDS when compared to the primary debulking surgery in operable advanced EOC.

Key words: Epithelial ovarian cancer; interval debulking surgery; neoadjuvant chemotherapy

Ovary: Oral Abstract

Malignant ovarian germ cell tumors in children: A single centre experience

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Background: Germ-cell tumors (GCT) are the commonest ovarian neoplasm in the first two decades of life.

Aim: To study the profile of ovarian GCT in children and their outcome.

Methods: Retrospective study of all cases of malignant ovarian GCT in the pediatric age (up to 18 years) was done from January 2002 to December 2015. The medical records of all admitted cases during this period were reviewed and the data was analysed with respect to age at diagnosis, clinical presentation, tumor markers, surgical stage, tumor histology, therapy, clinical course, and outcome.

Results: Girls with malignant ovarian GCT were seen at our institute during the study period. Out of these 25 underwent treatment. Mean age at presentation was 11.7 years (range: 3-18 years). Abdominal pain was the commonest presentation. Twelve (47.3%) had right sided disease, 11 (42%) had left sided disease and 2 had bilateral disease. Twelve cases (57.8%) were diagnosed as stage I disease, 5 (10.5%) as stage II, 7 (26.3%) as stage III and 1 (5.2%) as stage IV. Elevated AFP > 1000 was found in 9 (47.3%), elevated B-HCG (> 50) in 7 (42%) and elevated LDH (> 1000) in 7 (36.8%) patients at presentation. Twenty (73.6%) patients underwent surgery prior to chemotherapy out of which 4 (21%) patients presented after undergoing surgery at other centre. Fourteen (57.8%) patients received 4 cycles of BEP based chemotherapy, 6 (21%) received 3 cycles, 2 (10.5%) received 2 cycles and 1 patient did not receive any chemotherapy as it was mature teratoma. The most common histology was dysgerminoma in 8 (42%) patients followed by mixed germ cell tumor in 4 (21%), teratoma in 3 (15.7%), embryonal carcinoma in 2 (10.5%) and yolk sac tumor and mature teratoma in 1 patient each. Four (21%) patients had relapse on contralateral side which was salvaged. 1 patient presented with relapse who underwent only surgery outside, 1 patient had ovarian torsion. Median follow up is 27months. The event free survival rate was 78.9%.

Conclusion: This study confirms an excellent outcome for girls with ovarian germ cell tumor. Patients with advanced surgical stage relapsed frequently. The mainstay of treatment is fertility preserving surgery and cisplatin-based chemotherapy.

Ovary: Oral Abstract

Role of cancer antigen 19-9 in complex ovarian tumors

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Background: Cancer antigen 19-9 (CA 19-9) is a tumor-associated mucin glycoprotein antigen that may be elevated in healthy individuals as well as in patients with benign and malignant tumors. It is useful in the management of pancreatic and other gastrointestinal tumors. CA 19-9 is also elevated in benign and malignant ovarian tumors.

Aim: To study the pattern of serum CA 19-9 in complex ovarian tumors.

Methods: The study design was descriptive, based on data collected from medical records. Patients with a complex ovarian mass, who were investigated with CA 19-9 and had undergone surgery, were included in the study. The study duration was 2 years from January 2014 to December 2015. A total of 273 patients (119 benign and 154 malignant) with complex ovarian

mass and elevated CA 19-9 underwent surgery during the study period.

Results: CA 19-9 was elevated in 55 patients (20%). Of these, 23 patients had benign tumors while 32 had malignant tumors. Among patients with benign tumors, 21 had dermoid, 23 had mucinous tumors and 75 had other types of tumors. CA 19-9 was elevated in 10 (47.6%) of the dermoids, 7 (30.4%) of the mucinous tumors and 6 (8%) of the other benign tumors. Among patients with malignant tumors, 138 were epithelial and 16 were non epithelial tumors. Of the epithelial tumors, 31 were mucinous and 107 were nonmucinous types. Overall, 29 (21%) had elevated CA 19-9. Of the epithelial tumors, 22.6% of the mucinous type and 20.6% of the non mucinous type had elevated CA 19-9. Among the non-epithelial tumors, 3 (18.8%) had elevated CA19-9.

Conclusion: CA 19-9 is elevated in several conditions but most likely to be raised in dermoid cysts and mucinous tumours. CA19-9 levels need to be interpreted along with clinical and radiological findings.

Ovary: Oral Abstract

Single centre experience of ovarian germ cell tumours over 8 years

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Introduction: Germ cell tumours comprise approximately 15-20% of all ovarian tumours. Two third of ovarian tumours in first two decades of life are germ cell tumours. Majority of ovarian germ cell tumours are benign teratomas. The malignant germ cell tumours are usually solid and arise from totipotent germ cells. Over the past 3 decades the clinical outcome of women with ovarian germ cell tumours (OGCT) have significantly improved mainly due to development of more effective chemotherapy regimens.

Objective: To study the clinic pathological features, treatment and survival of women with ovarian germ cell tumours.

Methods: This is a retrospective descriptive study taken from the case files of patients with histo-pathologically proven ovarian germ cell tumours who were treated in JIPMER over 8 years from 2007 to 2014.

Results: There were totally 63 patients with ovarian germ cell tumours over 8 years who were treated in JIPMER. The age at presentation varies from 12 years to 65 years with a median age of 26.5 years. Three were pre pubertal and 1 was post-menopausal. Twenty two women (34%) were unmarried and 5 were pregnant at the time of presentation. Forty eight (76%) of them did not have any menstrual abnormalities. Pain abdomen (55%) was the most common presentation. Ten of them presented with acute abdomen of which 8 were torsion, 1 was ruptured dermoid and 1 was infected dermoid. Another 6 patients had torsion which was diagnosed only during surgery. Majority (68%) were benign tumours (dermoid) and among malignant tumours, there were 6 dysgerminomas, 5 immature teratomas, 5 mixed germ cell tumours and 4 yolk sac tumours. Almost half (22 out of 43) of women with benign tumours were < 25 years whereas 3/4th (14 out of 20) of women with malignant germ cell tumours were < 25 years. The most common tumour marker which was elevated was alpha fetoprotein (8) followed by LDH (5). Fertility sparing surgery (salpingo-ovariotomy) was commonly performed which was 95% (41/43) in benign tumours and 60% (8/20) in malignant tumours. Contralateral ovary was biopsied in only 5 patients with suspected involvement (negative on final HPR). Out of 20 women with malignant ovarian tumours 7 were in advanced stage (Stage III). Majority of them recovered well from surgery, only 12% had post-operative febrile morbidity and one patient had subclavian vein thrombosis on post op D9 which required anticoagulants. 7 of 20 women received chemotherapy (BEP) for 4 cycles. No serious side effects of chemotherapy were noted in these women. 3 out of 20 women with malignant germ cell tumour were lost to follow up. No recurrences have been found in rest of the women and there are no deaths till last follow up.

Conclusion: Advances in the field of medicine like effective chemotherapy regimens, improved imaging, precise surgical staging and fertility sparing surgical procedures enable women not only to preserve the reproductive function but also to improve their quality of life.

Ovary: Poster Abstract

Cystic adnexal lesion on USG – causing a diagnostic dilemma in oncology institute

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Adnexal lesions are one of the most common cause of gynecological complains, including possibility of ectopic pregnancy in reproductive age group. Ultrasound is the first imaging modality used for evaluation of adnexal lesions. On ultrasound large non-adnexal lesions can be confused as adnexal lesions causing a diagnostic dilemma, rendering use of cross-sectional imaging mandatory. We present a case of middle-aged female who was diagnosed with a right adnexal lesion (possibly malignant) on ultrasound, but on further evaluation was found to be suffering from a benign non-adnexal etiology.

Ovary: Poster Abstract

Role of intraoperative frozen section in the diagnosis of ovarian tumors: Experience at Gujarat Cancer and Research Institute

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Background: The surgical management of ovarian tumors depends on their correct categorization as benign, borderline or malignant. Ovarian neoplasms are an important cause of morbidity and mortality in women. This study was undertaken to evaluate the accuracy of intra-operative frozen section in the diagnosis of various categories of ovarian neoplasms.

Methods: Intraoperative frozen section diagnosis was retrospectively evaluated in 125 patients with suspected ovarian neoplasms who underwent surgery as primary line of therapy at our institution. This was compared with the final histopathologic diagnosis on paraffin sections.

Results: In 125 patients frozen section report had a sensitivity of 100%, 95.55% and 50% for benign, malignant and borderline tumors respectively. The corresponding specificities were 92.45%, 98.75% and 99.14% respectively. The overall accuracy of frozen section diagnosis was 95.2%. The majority of cases of disagreement were in the mucinous and borderline tumors.

Conclusion: Intraoperative frozen section has high accuracy in the diagnosis of suspected ovarian neoplasms. It is a valuable tool to guide the surgical management of these patients and should be routinely used in all major oncology centers.

Key words: Frozen section; intraoperative; ovarian tumor

Ovary: Poster Abstract

Multiple recurrence of granulosa cell tumor of the ovary: A case report and literature review

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Introduction: Granulosa cell tumors comprise approximately 5% of all ovarian malignancy and account for 70% of malignant sex cord stromal tumors. Granulosa cell tumors have been diagnosed from infancy, the peak incidence being perimenopausal age. The potential of malignancy of these tumors is low, recurrences are often late and found in 10-33% of cases.

Case Report: A 32-year-old P1L1 presented with large abdominal mass for which she underwent staging laparotomy with debulking surgery. She was a known case of granulosa cell tumor in the past and had undergone three laparotomies, along with chemotherapy. At the age of 13 yrs, she was diagnosed with a stage IA granulosa cell tumor (GCT) of the ovary first time. She underwent surgical staging and removal of left sided adnexal mass, after which she was asymptomatic for 7 years. In 2003 she again presented with lump abdomen for which she underwent resection of adnexal mass, histopathology was consistent with recurrent GCT. After second surgery she also received two cycles of chemotherapy. Despite adjuvant chemotherapy, patient presented again after three years in 2006 with adnexal mass and was found to have a third recurrence. At that time, she received 6 cycles of chemotherapy and the mass regressed. Meanwhile she got married and had one child. After four year in 2010 she again presented with lump abdomen

and she underwent surgical staging, total abdominal hysterectomy with right salphingo oophorectomy along with removal of mass. After five year in 2015 she again presented with lump abdomen; there was a large pelvic mass which was removed and patient referred for chemotherapy.

Discussion: GCTS which a rare malignant tumors of ovary tend to be associated with late recurrences. Although most recurrences occurs within 10 years after initial diagnosis, there are occasional reports of recurrences after 10 years. We experienced the rare case of a patient who relapsed multiple times over 20 years, despite surgical and targeted treatment.

Conclusion: The long history of granulosa cell tumor highlights the importance of extended follow up of the patient.

Key words: Chemotherapy; granulosa cell tumor, recurrent disease, surgical staging

Ovary: Poster Abstract

Successful pregnancy outcome in recurrent ovarian cancer

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Incidences of ovarian cancer in pregnancy are increasing nowadays due to routine use of ultrasonography in first trimester and postponement of childbirth to an older age. Reported incidence of ovarian tumor in pregnancy is 1:1000 among them 3.6% are malignant. We report a case of recurrent ovarian tumor with successful pregnancy outcome. She was a 26 yr old primi had ovarian cancer recurrence 2 year after primary surgery. In present pregnancy she was given chemotherapy with two doses of carboplatin, and had viable baby at 34 weeks of pregnancy. At present mother and baby are doing well and on regular follow-up at radiotherapy departments.

Ovary: Poster Abstract

Sclerosing sex cord stromal tumour of the ovary: A rare variant of ovarian neoplasms in childhood and adolescence

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Case Report: 19 yr old unmarried girl c/o abdominal distension, loss of appetite and Irregular menstrual cycles x 5 months. USG: gross ascites, liver, Lobulated isochoic mass in right adnexa, 7x5 cm, abutting right ovary. CA125: 1297 U/ml. FNAC Degenerated crushed cells & stromal fragments. Few scattered benign oval/spindle cells. Laparoscopy f/b laparotomy: 6 litres of straw colored ascitic fluid drained. Uterus, left adnexa normal. Rt ovarian mass 6x7 cm, bilobed, arising from ovary. Solid, stuck in POD Adherent to gut. Right oophorectomy done. CA-125: 22 u/ml on day 6 post op. HPE – Sclerosing stromal tumor.

Discussion: Sclerosing sex cord stromal tumour of the ovary is a rare tumor; accounts for 6% of ovarian stromal tumors Over a 100 reported tumors in literature. 80% of SST seen in second and third decade of life. Essentially a benign tumour, Usually a unilateral nonfunctioning tumor. Few cases with elevated serum CA-125 and hormonal abnormalities have been reported. Endocrine alterations caused by secretion of estrogen, progesterone or testosterone; induction of precocious puberty.

Conclusion: Unilateral oophorectomy is the treatment. No recurrence of the tumor in the patients treated by oophorectomy or by conservative resection of the tumor. Excision of the tumor is followed by normal menses, pregnancy has also been reported.

Ovary: Poster Abstract

Juvenile granulosa cell tumor

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The differential diagnosis for precocious puberty in a young female includes peripheral causes. This case report documents a rare cause of isosexual precocious puberty, a juvenile granulosa cell tumour of the ovary—and