BILATERAL MULTIPLE LUTEIN CYSTS ASSOCIATED WITH PREGNANCY

(A Case Report)

by

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Bilateral lutein cysts are mainly associated with vesicular mole and chorion epithelioma. The finding of such cysts with normal pregnancy is rare. Girouard *et al* (1964) reported 17 cases of bilateral lutein cysts associated with normal pregnancy, including two of their own cases. Folke Pettersson has recently (1970) reported one case: This report is of a case of bilateral lutein cysts with normal single pregnancy which ended in normal term delivery.

Case Report

A patient aged 20, gravida III, was admitted on 30-1-70 with history of 3 months' amenorrhoea and pain in the lower abdomen of two weeks duration. The pain had been constant in nature. There was difficulty during micturition. No difficulty during defaecation.

Her menstrual cycles had been regular and the last menstrual period was 3 months previously. She had been married for 5 years, with two full term normal deliveries. Last child birth was 1½ years previously.

Physical examination revealed a fairly nourished individual. Cardiovascular and respiratory systems nil relevant. Blood pressure was 120/80 mm hg. Pulse rate 90/mt. Temperature 98.4 F.

Per abdomen, a cystic mobile, non-tender swelling about 3" in diameter was felt in right iliac fossa. There was no muscle guarding. The uterus was just palpable per abdomen.

On bimanual vaginal examination, cervix was pointing downwards and backwards, uterus enlarged to 12-14 weeks' size, deflected towards left side. A vague cystic mass, the size of an orange was felt through the anterior and right fornix and slightly tender.

Because of the abdominal pain, pregnancy with twisted ovarian cyst was suspected and laparotomy was performed on 3-2-70.

Under general anaesthesia, the abdomen was opened by a right paramedian incision. Blood stained fluid was present in the peritoneal cavity. The uterus was enlarged to about 12-14 weeks' size. Bilateral multilocular thin walled cysts were found on both sides. The cyst wall was congested and very thin on the point of rupture in some places. The left cyst had undergone mild torsion. Bilateral partial resection of both ovaries was done with preservation of sufficient ovarian tissue on both sides.

As the picture was suggestive of vesicular mole, aspiration of the uterus was done. Clear liquor was aspirated. Thus normal pregnancy was confirmed. The patient had an uneventful post-operative period.

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Pathological Report

Gross appearance: Multilocular thin walled cysts, each measuring about 9 x 6 x 3 cms locules of varying sizes; contained blood-stained fluid.

Microscopic examination: Both ovaries show multiple lutein cysts, one or two follicular cysts and corpus luteum.

On discharge after 18 days undiluted urine for biological test was positive but negative in dilution. She came for follow up one month after discharge. The uterus was enlarged to about 16 weeks' size. There was no vaginal bleeding. Second follow up on 19-6-70. Uterus enlarged to 26-28 weeks. Foetal parts felt. The patient did not come for further follow up. Enquiry revealed that she had delivered a normal healthy female baby in another institution. The patient came for examination one month after delivery. On vaginal examination, the cervix was pointing downwards and forwards uterus R. V. normal size. Fornices free.

Discussion

The exact reason for the occurrence of lutein cyst is unknown. Chorionic gonodotrophin produced by trophoblasts is probably the agent for production of lutein cyst. Seventeen cases reported by Girouards (1964) were complicated by foetal hydrops in 6, multiple pregnancies in 5 and six apparently normal single pregnancies. In all these cases ovarian changes were identical with that of vesicular mole or choriocarcinoma indicating a common etiological factor. The stimulus is assumed to be the excessive circulating chorionic gonodotrophin produced by the persistent cytotrophoblast as could be in cases of erythroblastosis where the placenta is immature. But no placental abnormalities were reported among those cases associated with normal pregnancy. Novak points out that the normal human ovary is not always influenced by chorionic gonodotrophins. The characteristic changes found in ovaries of a patient with a vesicular mole resemble those which have been produced experimentally by anterior pituitary sex hormones. Therefore, perhaps in some way through an activator principle, the abnormally excessive production of chorionic hormone evokes an exaggerated anterior pituitary sex hormone production with hyperreaction luteinalis in the ovary.

The management of these cases offer a problem. Symptoms may be present in the first or the second trimesters, (Rudolph *et al* 1956, Bergman 1963, Downing 1961 and Jones 1961) and prompt laparotomy or the cysts may produce inlet dystocia at labour necessitating caesarean section (Girouard 1964; Parker *et al* 1964). Downing suggested immediate termination of pregnancy in view of high incidence of foetal abnormality. But due to occurrence of quite normal pregnancies with delivery of normal babies at term as reported by several authors, it is felt that partial oophorectomy in complicated cases is sufficient.

References

1. Bergman, P.: Obst. & Gynec., 21: 28, 1963.
2. Downing, G. C.: Obst. & Gynec., 18: 77, 1961.
3. Folke, P.: Acta Obst. & Gynec. Scandinav: 49: 221, 1970.
4. Girouard, Darell, P., Dauldz., Barclay and Conard C. Collins: Obst. & Gynec., 23: 513, 1964.
5. Jones, W. J. Jr. and Huston, J. W.: Obst. & Gynec., 81: 1033, 1961.
6. Novak, E.: Gynec. & Obst. Pathology: Sixth Edition 1967.
7. Parker, R. E. and Fisher, E. L.: Obst. & Gynec., 23: 89, 1964.
8. Rudolph, A. L. and Barnett, R. V.: Obst. & Gynec., 8: 293, 1956.