CARCINOMA OF RECTUM COMPLICATING PREGNANCY*

Case Report with Review of Literature

by

LAXMI I. ASHAR, M.D., F.C.P.S., D.G.O., D.F.P.

S. B. KARMARKAR, M.B.B.S.

M. M. SHAH, M.B.B.S.

V. N. PURANDARE, M.D., F.R.C.S.

Introduction

The paucity of the report of this condition in Indian literature has stimulated us to publish this case. Carcinoma of the rectum complicating pregnancy is an infrequent condition because of the disparity in the age incidence between pregnant women and those suffering from rectal malignancy. Reports on cases of carcinoma of the rectum are scattered in the world literature. The incidence of all types of cancer in pregnancy is given as 4 to 6 cases in 10,000 pregnancies. Carcinoma of the rectum stands fifth on the list of primary carcinoma. McLean and his associates came across one case of carcinoma of the rectum in 20,000 pregnancies. This gave an incidence of 0.002 per cent. Child and Douglas reviewed 120 major surgical procedures performed in 40,000 pregnancies with no reported case of rectal carcinoma.

From the Dept of Obstetrics & Gynaecology, K. E. M. Hospital, Parel, Bombay 12.

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CASE REPORT

Mrs. D. G., aged 30 years, 4th gravida, was admitted on 28th July 1968 at King Edward VII Memorial Hospital, Bombay, with a history of 9 months' amenorrhoea and labour pains.

She had three full-term normal deliveries, her last confinement being 4 years ago.

On examination, she was found to be slightly pale, her blood pressure was 110/70 mm. Hg. and her pulse rate 80 per minute.

The systemic examination did not reveal any abnormality. Abdominal examination revealed the uterus to be of 40 weeks' size. The vertex was floating in the right occipito-anterior position. The foetal heart sounds were about 140 per minute.

On vaginal examination, the cervix was found to be 2 fingers loose, thick and partly taken up, and the membranes were present. The presenting part was vertex and the biparietal diameter was above the brim of the pelvis. The pelvis was adequate.

A firm swelling, about 2 inches in diameter, could be palpated on the posterior vaginal wall. Initially, it was thought that this mass was caused by impacted faecal material. So, a simple enema was advised.

The membranes ruptured at 3-40 p.m. The liquor was thin meconium-stained. The foetal heart sounds were about 140 per minute.

On vaginal examination, the cervix was found to be more than 3/4ths dilated. The biparietal diameter was above the spines. The same mass could be still palpated.

Rectal examination revealed that there was a hypertrophic, ulcerative growth on the anterior rectal wall. It was about 2 inches in diameter, the lower limit being an inch above the external sphincter. It was firm in consistency and had an irregular surface.

A diagnosis of ? rectal malignancy was made at this stage. On inquiry, the patient now gave a history of constipation and bleeding per rectum 2 months ago for which she had taken symptomatic treatment.

Signs of foetal distress developed, and as there was no further progress because of the obstruction caused by the rectal swelling, the patient was taken up for section. A lower segment caesarean section was carried out and a male baby weighing 2 kg. 600 gms. was delivered at 5-0 p.m.

The patient did well post-operatively. The baby was also in good health. Biopsy of the rectal ulcer was taken on the 4th post-operative day. It revealed anaplastic carcinoma.

A repeat rectal examination on the 7th day showed the following findings. The ulcer had spread on to the left side and had encroached on to the posterior rectal wall as well. The vertical diameter of the ulcer was about 2½ inches. There was no infiltration of the para-rectal tissues.

The patient was subsequently prepared for abdomino-perineal resection and was given two blood transfusions. But, she refused surgery and was discharged against medical advice.

Discussion

History: Jan Cruveilhier, in 1835, reported the first case of carcinoma of rectum in pregnancy. During the course of premature labour, a tumour mass was detected. Internal podalic version and extraction of a still-born infant was carried out. The patient expired after 4 days.

Lever was the first person to report such a case in English literature in 1843. This patient had signs and symptoms of large bowel obstruction during labour. The patient died after many months.

Mackenzie, in 1860, performed a therapeutic abortion for rectal carcinoma. Greenhalgh (1866), Herman (1878), Zwiefel, Hicks and Kaltenbach showed 100 per cent maternal mortality due to peritonitis. In 1893, Hollander reported a successful pregnancy terminated by caesarean section. Jordan, Holzaepfer and Baldy reported no maternal mortality in their cases.

O'Leary and Bepko (1962) observed that before the onset of the twentieth century recognition of rectal malignancy with pregnancy was rare, and between 1900 and 1940 the maternal mortality was lowered by the use of colostomy for intestinal obstruction and the carcinoma itself was rarely excised because it was an advanced lesion.

According to Banner and co-workers, during 1918 to 1945, only 7 patients were met with at the Mayo Clinic, in whom carcinoma of the large intestine was associated with pregnancy. Of these, 4 patients had carcinoma that appeared in association with pregnancy, one had a malignant rectal polyp, and the remaining 2 patients became pregnant some time after an operation for resection of the colonic neoplasm.

Katz and Kaspar have reported a series of 5 cases in whom the rectum was successfully removed without disturbing the pregnancy. Bacon, Jennings and McLean *et al* have also reported cases of carcinoma of the

rectum complicating pregnancy.

Warren (1958) stated that among 1,600 cases of cancer of the rectum at St. Mark's Hospital, London, only nine occurred during pregnancy. All nine were operable and six showed a long term survival.

Turell and Wimpfheimers (1959) met with two cases of carcinoma of rectum during pregnancy.

Diagnosis

Signs and symptoms: It is not uncommon to overlook cases of carcinoma of the rectum during the antenatal period as most of the symptoms of this disease can also be encountered as a result of physiological changes of pregnancy. The symptoms are nausea, vomiting, abdominal distension and cramps, constipation, backache, rectal bleeding, change in bowel habits and alternating constipation and diarrhoea. Occasionally, the patients first make their appearance with the symptoms of acute obstruction and perforation (Finn and Lord, (1945) and Putzki *et al* (1949). Some cases have been described with intussusception, chronic rectal granulomas, rectal prolapse and sigmoid perforation. Routine digital examination and proctosigmoidoscopy can act as the best screening tests for carcinoma of the rectum. These can be performed at any time during pregnancy and will disclose over 75% of the lesions. A barium enema must be employed in those cases where a lesion is seriously suspected, without regard to the possible dangers associated with foetal exposure to irradiation. Rarely, rectal lesions may remain asymptomatic until term, when they may manifest themselves as a cause of dystocia. Ours was one of the rare cases in which the lesion was detected because of dystocia.

Treatment

The therapy varies from patient to patient. Before deciding the line of treatment the following factors should be considered—the age of the patient, number of children, the desire for more children, the period of gestation, religious beliefs and the technical operability.

It is important to consider this problem during the first trimester of pregnancy. McLean and others (1955) pointed out that no operator found it necessary to terminate the pregnancy in the first and second trimesters. Fifteen patients were operated during this time, of which only one expired and two aborted. Warren (1958) has also expressed the same opinion, as he concluded after reviewing the world literature that the course of carcinoma of the rectum is not adversely affected by pregnancy. Turell and Wimpfheimers (1959) have confirmed this. Lull and Kimbrough in their book "Clinical Obstetrics", however, advocate otherwise. According to them "In carcinoma of the rectum complicating pregnancy, with or without obstruction, resection is frequently followed by abortion and peritonitis, so that hysterectomy and resection is the best treatment in early pregnancy".

So far as the 3rd trimester is concerned, it appears that there is no difference in the maternal mortality in the cases undergoing caesarean section and those delivering per vaginam. However, foetal mortality al-

most doubled when the patients were allowed to deliver per vaginam. The treatment during this trimester has aroused most conflicting opinions. Greenhill (1960) feels that lower segment caesarean section should only be used for obstetric indications. According to McLean *et al* (1955) it is better to undertake a lower segment caesarean section or preferably a hysterectomy and bowel resection at 32 weeks, as there are bad effects of pressure and trauma on the tumour mass if the patient is allowed to deliver per vaginam. By adopting this procedure the incidence of foetal wastage is lowered.

Turell and Wimpfheimers in addition advocate oophorectomy because of the high incidence of microscopic metastasis.

Schlemenson *et al* (1950) and Swartley *et al* (1947) had 2 patients with carcinoma of rectum complicating the 3rd trimester of pregnancy. A caesarean section followed by definitive surgery for rectal carcinoma was carried out.

The 5-year survival rate for these cases is 50-60 per cent. The operative mortality is 3-4 per cent. According to Vandertoll and Beahrs (1965) more than one-third of the operative deaths are due to surgical technical complications associated with leaks from the site of anastomosis. Combined abdomino-perineal resection is the best operation for these cases.

DeDombal *et al* (1965) studied women becoming pregnant following proctocolectomy and ileostomy for ulcerative colitis. According to them, patients can become pregnant even in the absence of a large portion of bowel and can deliver per vaginam without any obstetric complications.

Our patient was subjected to lower segment caesarean section only, at the time of laparotomy, as the diagnosis of rectal malignancy was in doubt and the patient required an urgent caesarean section. At a later date, our patient refused abdomino-perineal resection like many others in the world literature.

Summary

A case of carcinoma of rectum complicating pregnancy is presented.

The world literature on the same subject is also reviewed.

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