Joint Meeting No. 3

# Section of Proctology with Section of Obstetrics & Gynæcology

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# Anorectal Conditions in Obstetric Practice

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## Ulcerative Colitis in Pregnancy

As ulcerative colitis most commonly occurs in the female between 20 and 40 years of age, it is quite likely to be connected with pregnancy, an association noted over sixty years ago at a symposium held at the Royal Society of Medicine (Gossage & Price 1909).

The present series was collected not only from the Royal Maternity Hospital, Glasgow, but from hospitals throughout Central Scotland. It is divided into patients treated medically and those who underwent surgery during or before pregnancy. The diagnosis in all cases was confirmed and the degree of colitis classified according to the criteria of Truelove & Witts (1955).

### PREGNANCY ASSOCIATED WITH MEDICAL TREATMENT OF ULCERATIVE COLITIS

Fifty pregnancies in 38 women who had undergone medical treatment for ulcerative colitis were examined and its effect on pregnancy was considered. The duration of the colitis ranged from five months to seventeen years, with an average of five years. There were 5 abortions, 41 vaginal deliveries and 4 Cæsarean sections. Therapeutic abortion was performed in one case, because of colitis and on social grounds. All 4 spontaneous abortions occurred in cases of active ulcerative colitis, but the condition had improved in 3 cases, in 2 of which steroid therapy had been discontinued. In the fourth case termination had been contemplated but spontaneous abortion ensued. A complication of colitis, ischiorectal abscess, was the indication for one of the abdominal deliveries, the others being performed for obstetric reasons.

*Outcome of Pregnancies*

The abortion rate was 8%, which is below the national estimate of 10% (Baird 1950). There was only one stillbirth, unrelated to colitis, and no neonatal deaths, giving a perinatal mortality of 20 per 1,000; this compares favourably with that at the Royal Maternity Hospital, Glasgow, in 1970 of 25 per 1,000. There were no maternal deaths (the present maternal mortality in England and Wales is 0·2 per 1,000 births). No fœtal abnormalities occurred. The minor upsets of pregnancy were not increased. Tolerance to iron was good; only six patients required parenteral iron for anæmia.

*Effect of Pregnancy on Colitis*

Before pregnancy 22 patients were in an active, and 25 in an inactive phase. Three patients developed ulcerative colitis for the first time during pregnancy. Of the active cases, 10 deteriorated, and 8 showed improvement; this was most marked in the first trimester, all 8 cases showing remission by the eighth week.

Four remained unchanged throughout the pregnancy. Of the patients in a phase of remission, deterioration occurred in 4 out of 25 cases, 3 of them in early pregnancy. The stage of pregnancy in which deterioration occurred has been analysed in both the active and the inactive phases of colitis. Deterioration occurred at all stages of pregnancy with no predominance in any particular period. However, the number of cases is small

and perhaps no prediction can be made from them.

Nine women had more than one pregnancy; 2 had 3 children. The effects of these pregnancies on colitis were compared. In 2 cases colitis was more severe in the first pregnancy, in 2 in the second pregnancy, and in the remaining 5 equally severe in both. There is thus no definite pattern and although the numbers are small this is in agreement with other series which showed no consistent effects in successive pregnancies.

Medical treatment consisted of Salazopyrin, oral steroids and local corticosteroids, either in combination or alone. Fourteen patients had oral steroids at some point during pregnancy, but never for prolonged periods. There were no complications of treatment and no case of placental insufficiency in this group.

## PREGNANCY ASSOCIATED WITH SURGICAL TREATMENT OF ULCERATIVE COLITIS

Twenty-one pregnancies in 19 women who had surgical treatment for ulcerative colitis have been analysed. These have been divided into those who had surgery during pregnancy and those who became pregnant following surgery.

### *Surgery During Pregnancy*

Nine patients required surgery antenatally or immediately *post partum*. In 5 this was performed between the tenth and twentieth week of the pregnancy, and in 4 in the puerperium. There were 2 abortions, one before abdominoperineal resection and the other after colostomy. The latter patient died two days after abortion. The remaining 3 cases who had surgery during pregnancy were delivered vaginally. One of the infants, however, was stillborn from placental insufficiency and it was thought that oral steroids might have been a contributory factor. Colitis was active in 3 of these 5 cases and in 2 had been in a remission phase for over a year.

All 4 patients requiring surgical treatment for colitis immediately after delivery were suffering from an initial attack. Two were within days of delivery and in one case, where Cæsarean section had been performed, the patient died. Laparotomy with abdominal drainage was carried out first, followed by ileostomy and subtotal colectomy from which she did not recover. In the third case ulcerative colitis started at 12 weeks. Steroid and supportive therapy were given but the condition deteriorated. The pregnancy was terminated at 30 weeks, with neonatal death. Ileostomy with subtotal colectomy was performed after ten days but, despite this, death occurred three weeks later. In the fourth patient to have surgery after pregnancy, ulcerative colitis commenced at about 30 weeks, but the pregnancy continued with spontaneous delivery at term. After delivery the condition deteriorated and ileostomy with subtotal colectomy was performed.

The outcome of pregnancy in these 9 cases treated surgically was poor. There were only 5 live births out of the 9 pregnancies and 3 women died, 2 during pregnancy and 1 in the puerperium.

### *Pregnancy After Surgery*

Twelve pregnancies were surveyed in 11 patients who had previously been treated surgically for ulcerative colitis. Nine were delivered vaginally and 3 by Cæsarean section. All had a successful fœtal outcome. One Cæsarean section was performed on account of ulcerative colitis because of a recently healed ischiorectal abscess; maternal death unfortunately occurred from intestinal obstruction. The interval between surgery and conception ranged from three months to three years. Anæmia was rare. Ileostomy function was not greatly upset, although in two cases stretching of the ileostomy stoma caused discomfort. Intestinal obstructive symptoms occurred in two cases; one required laparotomy, while the other responded to medical treatment.

Operative vaginal delivery was necessary in 5 cases because of a fibrous perineum. Episiotomy was performed in 8 of the 9 cases delivered vaginally. Ileostomy with colectomy is thus compatible with an uneventful pregnancy, vaginal delivery being preferable. The poor results found in patients undergoing surgery during pregnancy may not be a reflection on the associated pregnancy but on the colitis being severe enough to require radical therapy.

## CONCLUSIONS

Patients treated medically for ulcerative colitis had little upset during pregnancy, whereas those who underwent surgery had high rates of maternal death and infant loss. It seems that where colitis is severe the pregnancy is in danger and abortion may occur. Every effort should be made to control colitis and radical surgery should be undertaken if medical treatment fails. It might be thought that in pregnancy, where steroid levels are increased, improvement in the colitis would occur. This seems so in patients who are in an active phase in the early weeks of pregnancy; moreover, the fall in plasma cortisol level after pregnancy may explain the severity of post-partum cases.

There is no definite indication for therapeutic abortion on medical grounds in cases which do not require surgery. These patients are, however, often unwell and there may be good social reasons to terminate the pregnancy as they find rearing children very difficult. Termination can

be justified in cases requiring surgery, however. Although it may not improve the colitis, these patients are desperately ill and the additional load of pregnancy might be too great; moreover, pregnancy after surgery has excellent results. Thus a policy of terminating pregnancy when colitis is severe and encouraging the patient to become pregnant after surgery could be adopted. Ulcerative colitis in its mild form or in the inactive phase does not contraindicate pregnancy but, when it is active, contraceptive advice should be given as avoidance of pregnancy is desirable.

*Acknowledgment:* I am grateful to all my obstetric colleagues who kindly gave me access to their cases.

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## Ileostomy in Pregnancy

No one obstetrician can have amassed a large personal experience of the problems of pregnancy after ileostomy. This review of a series of 75 patients, with 89 pregnancies, is therefore based on reports collected from a large number of patients and doctors. Regrettably, a national postal strike seriously curtailed the scope of the enquiry, which was made possible through the good offices of the Ileostomy Association. In response to a circular numerous members wrote long and occasionally devastatingly candid letters which, besides providing the basic clinical facts, brought out some aspects of life with an ileostomy which are perhaps not widely appreciated. An ileostomy, it seems, is as much a part of the family as any new-born infant. They all have names, and even the ritual of changing bags and dressings is just like that of changing nappies.

There have been few publications on this subject (McEwan 1965), and the series have been small. Diversion of the small intestine has evolved during the post-war years from the simple relieving appendicostomy, through the diverting loop ileostomy, to the present terminal operation, which is almost always associated with either subtotal colectomy or total proctocolectomy. During much the same period the technique of urinary diversion has changed from the use of the intact bowel to that of isolated conduits, usually of ileum. Many of the associated problems of pregnancy are common to both types of ileostomy, but certain problems are particularly related to the condition responsible for the construction of an ileostomy.

### *Urinary Diversion*

Urinary diversion is occasionally performed for vesicovaginal fistula caused by obstetric trauma, but in practice ileostomy is unlikely because, in those parts of the world where vesicovaginal fistula is common, diversion into the intact bowel is the only form acceptable.

Ellison Nash (1971, personal communication) reports 4 patients who became pregnant having undergone urinary diversion in childhood for congenital spina bifida and meningomyelocele. The prospect of pregnancy in these patients caused considerable foreboding; the first to become pregnant, who was probably aware of the likely medical reaction to the project, conceived and arranged to be delivered without the knowledge of her surgeon. She subsequently repeated the performance, on both occasions having a normal vaginal delivery.

A collection of pus in the retained bladder is occasionally a nuisance in these patients. There seems, however, to be no mechanical bar to vaginal delivery, although the voluntary expulsive phase may be deficient. Nevertheless one patient had her pregnancy terminated for severe deterioration of the upper urinary tract. A classical Cæsarean section was carried out in a further patient whose urinary diversion had followed a fractured pelvis in a road traffic accident. The left ureter and ileal conduit were fixed across the front of the uterus, the only access to which was by a high classical incision extending over the fundus. This particular incision must carry a real risk of rupture in subsequent pregnancies. In Ellison Nash's 4 patients the uretero-ileal anastomosis was posterolateral and separate from the uterus, and gave no trouble.

With the modern short conduit there is a slight theoretical risk of stomal retraction, as the enlarging uterus could stretch the conduit like a bowstring between the anterior and posterior abdominal walls.

### *Intestinal Diversion*

The principal indications for ileostomy performed for alimentary diversion are ulcerative colitis and Crohn's disease. The significance of these two diseases after total proctocolectomy differs somewhat. When this operation has been performed on a patient with ulcerative colitis she may be con-