ARGENTAFFIN CARCINOMA OF THE TERMINAL ILEUM

(An Incidental Finding During Hysterectomy)

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The purpose of this paper is to emphasise the importance of routine exploration of the abdominal viscera in all patients undergoing elective abdominal surgical procedures. We report here a case in which an unsuspected and asymptomatic argentaffin carcinoma of the small bowel was discovered in the course of hysterectomy carried out for intractable metrorrhagia.

Case Report

The patient, a 52 year old multipara, was referred to the gynaecological outpatient department on October 5, 1972. She gave a history of irregular and heavy menstrual periods during the previous twelve months. Her last menstrual period had occurred in June 1972 since when the patient had also complained of hot flushes, tiredness, slight dyspnoea on effort and recent loss of appetite. There was no recent change in bowel habit and micturition was normal. No significant information could be obtained from the patient's past history.

On examination, the patient was moderately obese, pale and hypertensive (blood pressure 220/100 mm. Hg.). There was a soft apical systolic ejection murmur radiating towards the left axilla. Both breasts were normal to palpation and no abnormal abdominal masses could be felt. Pelvic examination showed the uterus to be enlarged by a fundal fibroid, but no other abnormality was noted.

The following pre-operative investigations were carried out: Haemoglobin 8.3 g.; blood group A Rhesus positive; haemagglutination-inhibition pregnancy test negative; and blood urea 19 mg. Urinalysis (Labstix) was negative. The patient's haemoglobin level rose to 12.0 g. following the transfusion of 1000 ml. of blood given one week prior to admission for hysterectomy.

At operation on November 24, 1972 the following findings were noted: the uterus was enlarged by a fundal myoma 7.5 cm. in diameter; the ovaries were normal in size but cystic. On further exploration of the abdominal cavity, a hard intraluminal tumour was encountered in the terminal ileum with its pedicle attached to the anti-mesenteric border, puckering the muscle layer and serosa. The growth was obviously infiltrating the mesentery which was haemorrhagic and rubbery in consistency. The liver and abdominal lymph nodes were normal to palpation as were the stomach, spleen, kidneys, adrenals and colon. There was no ascites.

The operative procedure consisted of total hysterectomy and bilateral salpingo-oophorectomy. This was followed by resection of part of the terminal ileum 10 cm. on each side of the tumour together with a wedge of mesentery which included the infiltrated area. End-to-end anastomosis of

the small intestine was effected about 7 cm. from the ileo-caecal junction.

Post-operative naso-gastric aspiration and intravenous fluids were discontinued on the second day when the patient started passing flatus and had a bowel action. Subsequent recovery was uneventful and the patient was discharged from hospital on the tenth day. She was re-admitted on December 11, 1972, 2½ weeks after her operation, with signs and symptoms of intestinal obstruction. This was thought to be due to adhesions and was treated conservatively with good result. The patient was discharged home after four days and when last seen for follow-up on April 2, 1973, her condition had remained satisfactory.

Histology of the uterus showed adenomyosis and leiomyoma. The report on the bowel specimen read: "The nodule in the ileum is an argentaffin carcinoma. There is pronounced permeation of the lymphatic channels with tumour cells within the deeper muscle layers".

Discussion

Argentaffin carcinomas or carcinoids arise from argentaffin or Kulchitsky cells in the intestinal mucosa which secrete serotonin (5-hydroxytryptamine, 5-HT); similar tumours may be found in other sites such as the bronchus, pancreas and ovary where mature Kulchitsky cells are not to be found. The term 'carcinoid' was coined by Oberndorfer (1907) to distinguish these slowly-growing and relatively benign tumours from adenocarcinomas.

Serotonin released into the portal circulation is rapidly destroyed by the hepatic enzyme monoamine oxidase so that only minute amounts of this substance are normally found in the blood. The presence of hepatic metastases, by interfering with the destruction of serotonin, may cause excessive amounts of this substance to be released directly into the systemic circulation to give rise to the so-called carcinoid syndrome. This syndrome, first described by Thorson *et al.* (19g4) includes episodes of cutaneous flushing, lobster-red discoloration of the face, diarrhoea and valvular lesions of the heart affecting mostly the right side. The syndrome is found in association with metastatic carcinoid tumours which secrete excessive amout of serotonin and other vaso-active substances including braykinin, histamine and prostaglandins. Confirmation of the diagnosis is made by demonstrating an increased urinary excretion of 5-hydroxyindoleacetic acid (5-HIAA) which is a metabolite of 5-HT.

Incidental descovery of carcinoid tumours of the small intestine at operation for some unrelated complaint, or at autopsy, is not uncommon. Carcinoid is the commonest single malignant tumour of the small intestine and accounts for one-third of all small bowel tumours. Spread occurs in 40 per cent of cases, at first to the mesenteric lymph nodes and later on to the liver. Nevertheless, these tumours metastasise slowly and even the presence of liver metastases is compatible with many years of life.

The case we have described underlines the importance of routine exploration of the abdominal viscera in all patients undergoing elective abdominal surgery. Unrelated pathological conditions, such as the asymptomatic carcinoid in this case, would otherwise be missed. A carcinoid tumour of the bowel without obvious distant metastases should be treated by wide excision of the affected loop and its mesentery. It may be justified, on occasion, to perform a partial hepatectomy in cases where metastases affect only one part of the liver. The use of tryptophan hydroxylase inhibitors to block tumours 5-HT production is still in the experimental stage.

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References

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