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Letter to the Editor

Dear Sir,

I was somewhat surprised by the statement of Dr Ohry and his colleagues (Paraplegia **26**:350–354) that Acute Intermittent Arteriomesenteric Occlusion of the Duodenum (AIAOD) 'may rarely occur in SCI patients . . .'. This was because we have seen a degree of this condition in several of the 80 or 90 patients with acute spinal cord injury who are admitted to our Spinal Unit yearly.

Our routine gastrointestinal management of newly injured patients is as follows: because of the high incidence of paralytic ileus in the 'spinal shock' phase (as stated by the authors), the passage of a naso-gastric tube with free drainage and regular aspiration is routine. Oral fluids in small quantities are given when the bowel sounds have returned and the aspirates are reduced to a few millilitres, gradually progressing to larger amounts and then to solids. We almost never use corticosteroids. The incidence of stress ulceration and of bleeding has fallen greatly since the introduction of routine prophylactic medication with ranatidine, intravenously initially, then orally, during the period of immobilisation in bed. Antacids are also administered if aspirates have a pH below 5. Patients are nursed on Egerton Stoke Mandeville electrical turning beds, being turned to each side (to about 45°) for 2 hourly periods, with 4 hours in the supine position in between. They are in the full side-lying position for only limited periods while certain procedures are in progress, e.g. wound dressings. In some Spinal Units this position is used for routine turning several times a day, which may be a factor in the difference in the incidence of AIAOD.

Occasionally, we find that a patient's bowel sounds return after a few days, but that the volume of naso-gastric aspirate remains unacceptably high. We ascribe this to one of two possible causes. Firstly, the possibility of AIAOD is considered; if this is suspected, the patient is put on to 'manual turns', i.e. the bed is left flat, and the patient is turned to lie fully on each side, supported by pillows. If the aspiration volumes decrease, oral intake is started, and it is soon possible to return the patient to electrical turning, as long as meals are taken in the side-lying position, which is maintained for a period after the meal. The presence of duodenal compression when supine, and its relief on turning, has been demonstrated radiologically on occasion. Only 1 patient has required relief surgery in more than 14 years.

The other, not uncommon, cause for persistently high volumes of naso-gastric aspirate after the return of bowel sounds is related to very low pH readings in the aspirate; in spite of the ranatidine. A pH 3 or below may be found. It is postulated that the high acidity causes spasm of the pylorus, with obstructed gastric emptying; this is supported by the fact that regular administration of liquid antacid, in doses which keep the pH above 4, is usually followed be a rapid fall in the volume of aspirate.

Internal fixation of the spine is carried out in only a minority of our patients, and no predominance of these among the patients who develop gastric outflow obstruction has been noted. In view of this communication we will look for any evidence of this possible, unexpected complication of spinal surgery.

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Reply from Professor Ohry

I want to thank Dr Ungar for his remarks and I wish to comment on them:

1. We still think that the AIAOD Syndrome is a very rare phenomenon. Although my clinical experience is shorter than that of Dr Ungar, may I say that during the last 15 years I have seen only 3 cases with this syndrome; 1 in Stoke Mandeville and 2 in Israel.
2. We pass a naso-gastric tube only if it is necessary and not routinely when there is evidence of ileus or sometimes in IRCU.
3. I agree that steroids have no effects in patients with complete spinal lesions.
4. In Israel and I believe in other countries as well, spinal stabilisation is sometimes required; but we have never seen AIAOD associated with lumbar internal stabilisation. Therefore we felt that it was important to report our case and we have tried to give some explanation for the phenomenon.

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