14). Rather some factors related to place of birth and early residence, perhaps close cohabitation in poor housing with an index patient, seem to promote HTLV-I infection. Improvement in such conditions was a prime reason for migration; indeed in 1897 the first Jamaican account of a tropical spastic paraparesis-like syndrome reported that many cases were found among the poor, as was found later.[31 32]

In conclusion, our data suggest that place of birth and early residence rather than maternal or age effects are the important factors in HTLV-I infection. No evidence of prolonged seronegative incubation of HTLV-I has been found.

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Absorption of glycine irrigating solution during transcervical resection of endometrium

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We recently described transcervical resection of the endometrium as a less invasive alternative to hysterectomy for menorrhagia.[1] The operation is similar to transurethral resection of the prostate in terms of technique and the use of liquid media such as 1·5% glycine solution for distension and irrigation. As absorption of large volumes of such fluid can cause fluid overload, hyponatraemia, cerebral oedema, haemolysis, and even death[2] we assessed the risk of these complications associated with the operation.

Patients, methods, and results

We studied 10 women aged 34-51 who were undergoing endometrial resection for symptoms of menorrhagia. They were otherwise healthy, and none took drugs that affected renal function. All women were starved for six hours preoperatively, and intravenous fluids were not used during the operation. The operative technique was as described previously[1] and included careful monitoring of inflow and outflow of the uterine irrigant. Haemoglobin concentration, packed cell volume, plasma osmolality, lactate dehydrogenase activity (an indicator of haemolysis), and plasma concentrations of sodium, potassium, creatinine, total protein, albumin, and glycine were measured before, during (at 10, 20, and 30 minutes), and after (at two, four, six, and 24 hours) resection.

The mean operating time was 39·2 minutes (range 20-80). Vital signs remained normal in all cases, and the mean estimated blood loss was 133 ml (80-200). A mean of 4948 ml irrigant was infused into the uterus (1750-8900), the mean deficit of fluid at the end of the operation being 643 ml (100-2030). The volume of fluid absorbed was smallest (100 and 200 ml) in two patients who had been sterilised.

There was a negative linear correlation between the volume of irrigant absorbed and the change in plasma sodium concentration ($r=-0·717$, $p<0·02$); hyponatraemia of 125 and 130 mmol/l occurred in two women within 10-30 minutes of the start of the operation, both women having absorbed more than 900 ml of irrigant. Changes in plasma sodium concentration were paralleled by falls in total protein, albumin, and haemoglobin concentrations and packed cell volume, but only minor fluctuations occurred in potassium and creatinine concentrations (table). Lactate dehydrogenase activity increased after the operation in the two women with hyponatraemia. Only two out of nine women monitored showed an increase

Mean values (ranges) of haematological and biochemical variables before, during, and after endometrial resection

Variable (normal range)	Before operation	During operation			After operation				Maximum change
		At 10 min	At 20 min	At 30 min	At 2 h	At 4 h	At 6 h	At 24 h	
Haemoglobin (g/l)	123	113	113	114	115	113	112	116	−15
(115-165)	(102-146)	(95-125)	(96-125)	(97-124)	(99-126)	(94-133)	(93-127)	(95-128)	(−39 to 5)
Packed cell volume	0·38	0·34	0·36	0·35	0·35	0·34	0·33	0·34	−0·06
(0·37-0·42)	(0·32-0·43)	(0·31-0·40)	(0·31-0·47)	(0·31-0·39)	(0·30-0·40)	(0·29-0·39)	(0·26-0·38)	(0·30-0·39)	(−0·03 to −0·12)
Sodium (mmol/l)	141·0	138·4	139·0	138·5	138·3	138·7	137·0	139·3	−4·8
(135-145)	(138-144)	(125-142)	(134-142)	(130-141)	(130-143)	(130-143)	(129-140)	(135-146)	(−16 to 5)
Potassium (mmol/l)	4·2	3·6	3·6	3·7	3·7	3·8	3·8	3·9	−0·45
(3·5-5·0)	(3·6-4·8)	(3·2-4·2)	(3·3-4·0)	(3·4-4·0)	(3·1-4·0)	(3·4-4·6)	(3·0-4·1)	(3·3-4·4)	(−1·6 to 0·8)
Creatinine (μmol/l)	78·8	72·3	72·8	73·5	75·2	72·7	72·5	77·9	−2·7
(70-150)	(61-104)	(58-94)	(56-95)	(59-94)	(58-92)	(58-88)	(61-87)	(59-99)	(−37 to 18)
Total protein (g/l)	74·7	66·3	66·2	64·6	68·4	67·3	66·1	68·9	−10·5
(60-80)	(66-86)	(59-79)	(56-81)	(55-78)	(59-84)	(59-78)	(59-82)	(63-81)	(−24 to −4)
Albumin (g/l)	45·1	40·4	40·5	40·2	41·5	41·4	40·9	42·2	−4·8
(35-50)	(40-49)	(35-45)	(34-45)	(33-45)	(36-47)	(37-45)	(36-46)	(37-47)	(−14 to 6)
Osmolality (mmol/kg)	282·7	281·9	281·5	280·9	280·2	279·9	278·3	282·8	−2·22
(278-305)	(276-290)	(274-293)	(275-293)	(273-290)	(271-291)	(272-285)	(270-289)	(274-293)	(−15 to 5)
Glycine (mmol/l)	0·34	1·88	2·75	3·25	0·95	0·44	0·36	0·36	3·14
(0·01-0·50)	(0·25-1·00)	(0·25-5·00)	(0·25-11·00)	(0·25-16·50)	(0·25-3·30)	(0·25-1·00)	(0·25-1·00)	(0·25-1·00)	(0 to 16·25)
Lactate dehydrogenase (IU/l)	154·8	137·8	151·2	146·4	174·1	172·1	182·0	122·3	36·7
(70-170)	(120-183)	(107-184)	(109-204)	(110-197)	(105-448)	(95-371)	(114-456)	(99-132)	(−70 to 294)

in plasma glycine concentration, peritoneal fluid from one having a glycine concentration of 75 mmol/l. All variables measured returned to baseline values within 24 hours, and no patient had clinical evidence of the transurethral syndrome.

Comment

Transcervical endometrial resection in which 1·5% glycine solution is used to distend and irrigate the uterus does carry a risk of fluid overload and rapid dilutional hyponatraemia during the operation. There were no clinical sequelae to these fluid shifts in our study, but recently a woman absorbed 4350 ml of irrigant during the operation and her plasma sodium concentration fell to 117 mmol/l; she responded promptly to diuretics, although the sodium concentration took 24 hours to return to normal.

During the operation some irrigant must infuse into opened myometrial vessels, but, unlike in laser ablation,[3] transtubal loss and rapid peritoneal absorption also seem to be important in electroresection. Preoperative tubal occlusion may thus be useful in high risk cases.

In summary, fluid balance must be closely monitored during endometrial resection, ideally with a continuous flow instrument.[4] The main biochemical effect of fluid overload is hyponatraemia, so plasma sodium concentrations should be measured if more than 900 ml of irrigant is absorbed; severe hyponatraemia is unusual unless the fluid deficit is large (>2 litres). In cases that are less severe plasma biochemical variables return to normal spontaneously within 24 hours, which is advantageous if the procedure is done on an outpatient basis.[5]

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Should radiologists talk to patients?

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Increased use of procedures such as angiography, ultrasound, and interventional techniques has resulted in a closer relationship between patients and radiologists. Many radiologists, however, are reluctant to discuss investigations with patients in detail, reasoning that patients are only temporarily in their care. Some clinicians agree with this view on the basis that radiologists do not know all the facts about the patient and are not ultimately responsible for clinical management.

We determined the views of NHS patients, radiologists, and clinicians on what radiologists should discuss with patients about their investigations.

Patients, methods, and results

We sent a detailed questionnaire to 400 consecutive outpatients attending the radiology department of this hospital for a barium meal examination or barium enema. We also sent a questionnaire to 53 radiologists in Northern Ireland, asking how they communicated with patients attending for barium studies, and to 37 clinicians with an interest in gastroenterology, seeking their views on what radiologists should tell patients. The radiologists and clinicians were invited to reply anonymously.

The response rate was 72% (287/400) for the patients, 62% (33/53) for the radiologists, and 87% (32/37) for the clinicians (of whom 21 were surgeons). The mean age of the patients was 50·1 years (range 18-83), and 147 patients had a barium meal examination and 140 a barium enema.

Altogether 101 patients were men and 186 women. Fears that cancer might be diagnosed were expressed by equal proportions of men and women (53% (53) and 52% (97) respectively). Of 126 patients who had had symptoms for <12 months, 58 (46%) were worried they might have cancer. There were 161 patients who had had symptoms ≥12 months and of these 86 (53%) were similarly worried. Eight (3%) were found to have cancer; of these five had been worried about cancer before investigation. Referring clinicians gave a pro-