

TABLE 2: Sensitivity of the enzyme-linked immunoelectrotransfer blot (EITB) assay for the diagnosis of sheep hydatidosis according to the organ affected

Sensitivity	Number of sheep	Number (%) seropositive in any or all bands
Lung	25	13 (52)
Liver	3	1 (33)
Multiple*	66	55 (83)
Overall	94	69 (73)

* Cysts in lung and liver

The EITB assay for the serodiagnosis of hydatidosis in sheep demonstrated a moderate sensitivity (73 per cent) and high specificity (98.6 per cent). No cross-reactions were observed in animals infected with *T. ovis* or *T. hydatigena*. The sensitivity was higher for animals with heavy infections. Major drawbacks for the diagnosis of hydatidosis in sheep in the past have been the relatively low sensitivity of the assays employed (Lightowlers and others 1984) and cross-reactivity with related cestodes such as *T. ovis* and *T. hydatigena* (Craig and Rickard 1981, Young and Heath 1984).

Although the sensitivity of this EITB assay is similar to that of the indirect haemagglutination or enzyme-linked immunosorbent assays (Martinez Gomez and others 1980, Young and Heath 1984), the EITB assay has the advantage of high specificity and no observed cross-reactions with other taenid infections. Further refinements in the immunoblot assay, such as the use of purified antigens, might result in higher sensitivities.

Use of enzyme-linked immunosorbent assays for echinococcal diagnosis in sheep have resulted in cross-reactions against *T. ovis* and *T. hydatigena*, even when hydatid antigens purified by affinity chromatography were used (Craig and Rickard 1981). The EITB described here may be suitable as a field tool to determine the prevalence of ovine hydatidosis, especially in areas where *T. ovis* and *T. hydatigena* are highly endemic.

Acknowledgements. — This study was funded in part by NIH grant No. 1-U01 A135894-01 and Consejo Nacional de Ciencia y Tecnologia (CONCYTEC), Lima, Peru. The authors thank J. Moro, N. Perez-Palma, J. B. Phu, D. Sara, P. M. Schantz, G. Leguia and G. Montes for editorial help.

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Commercial polyester fabric repair of abdominal hernias and defects

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Veterinary Record (1997) 140, 606-607

AN extensive literature has accumulated on the use of various synthetic materials for reinforcing hernia repair and for bridging tissue defects with variable results. The indications for prosthetic herniorrhaphy (Wion 1957, Adler 1962, Gilsdorf and Shea 1975, Karakousis and others 1975, Larson and Harrower 1978, Tulleners and Fretz 1983), and the technique of implantation (Johnson 1969, Scott 1979, Tulleners and Fretz 1983) have been described by many authors.

The aim of the present work was to study the feasibility of using commercial polyester fabric (CPF) as a prosthetic mesh for the reconstruction of major abdominal hernias and defects in experimental and clinically affected animals.

The subjects of the experimental work were 12 dogs, three goats and three donkeys. The dogs were premedicated with xylazine (2.0 mg/kg intramuscularly [Rompun; Bayer]) and ketamine (5.0 mg/kg intravenously [Ketavet; Parke Davis]) before thiopental sodium (10 mg/kg intravenously [Nesodnal; Spacia Paris]) anaesthesia. The calves and goats were premedicated with xylazine (0.2 mg/kg) before epidural and local infiltration anaesthesia. The donkeys were premedicated with detomidine (20 µg/kg intravenously [Demosedan; Formos Group]) before thiopental sodium (2.5 mg/kg intravenously) anaesthesia. An artificial abdominal defect was then produced by resection of a piece of abdominal muscle in three different abdominal regions, such as the epigastrium (three cases) in which partial resection of the rectus abdominis muscle unilaterally, both the external and internal abdominal oblique muscles and the transverse abdominis muscle was made; the mesogastrium (12 cases) in which bilateral partial resection of the rectus abdominis muscle was made; and the hypogastrium (three cases) in which partial resection of both the external and internal abdominal oblique muscles and the transverse abdominis muscle was made. These defects measured 5 × 12 cm in the dogs and goats and 12 × 20 cm in the donkeys.

An appropriate piece of sterilised CPF was implanted either in two layers in small animals or in four layers (folded) in large animals in the abdominal defect.

The techniques of implantation used were retroperitoneal/subfascial (six cases) in which the CPF was implanted between the internal rectus sheath and peritoneum (Fig 1a); intraperitoneal implantation either with (three cases) or without (three cases) omentalisation (Fig 1b); and double sandwich (three cases) in which one layer of CPF was implanted between the internal rectus sheath and peritoneum and the other layer was implanted superficial to the external rectus sheath (Fig 1c). The two layers of CPF were sutured in position using a staple stitch (Johnson 1969). The subcutaneous tissues were apposed over the prosthetic material using Vicryl 0 suture in a simple continuous pattern. The skin was closed routinely. Preoperative prophylactic ampicillin (25 mg/kg intravenously) was administered to all animals twice daily for seven days and they were kept under observation to record any complications.

Morphological and histological examinations were carried out on full thickness sections after euthanasia at one, two, three, four, five and six months postoperatively. The histological sections were stained with haematoxylin and eosin and Masson's trichrome.

The clinically affected animals comprised two bovine and two buffalo calves (aged six to 18 months and weighing 100 to 150

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