The effective resolution of thrombocytopenia in neonates with isoimmune Pla 1 thrombocytopenia suggests that this mode of treatment could be used in utero. When the diagnosis is suggested by previous family medical history, negative Pla 1 platelets in the mother and low platelet counts on fetal blood samples, intravenous gammaglobulin infused in the fetus could be an alternative to transfusion of Pla 1 negative platelets in utero.⁵

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Inguinal hernias are common in preterm infants

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SUMMARY The incidence of inguinal hernia was compared in term and preterm infants. The risk was considerably higher in the preterm group in both sexes. No particular complications of preterm birth were found to predispose to inguinal hernia.

Surgical texts indicate an increased risk of inguinal hernia in preterm infants. Increasing survival of these infants has made this a common problem on neonatal units. The risks of hernia complications in a frail infant are clear and we felt that a more detailed study of the extent of the problem and an attempt to define possible predisposing factors would be a useful exercise.

Method

The population of Liverpool is served by three maternity units and two children's hospitals where all surgery is performed. Names of all infants with Liverpool addresses born in 1981 who had hernia operations under the age of 6 months were obtained from surgical registers. Birthweight and gestational age were taken from the neonatal records. The notes of those born before 36 weeks' gestation were studied to discover any complications of prematurity which may have predisposed them to the development of inguinal hernia. The incidence of right, left, and bilateral hernias was compared for boys and girls of different gestational ages.

Results

Sixty five patients were identified, of whom 25 were born before 36 weeks' gestation; 15 of these were of very low birthweight, that is less than 1500 g. As expected, there was a noticeable sex difference with an overall 8:1 predominance of boys. The ratio was higher in the preterm group (12:1) but the difference between term and preterm groups did not reach statistical significance.

Right sided hernias predominated in term boys and bilateral hernias in term girls. The preterm group had a preponderance of bilateral hernias in both sexes but the number of girls was small. Left inguinal hernia alone was unusual.

The risk of a child developing a hernia and requiring operation before 6 months of age was calculated. Relative risks in the different gestational groups and the very low birthweight group are shown in the Table.

Table Percentage risk of developing inguinal hernia under the age of 6 months in boys and girls at different gestational ages and weights

		No of births	Hernias	% Risk
Gestational age	Boys	5649	35	0.6
	Girls	5299	5	0.09
Gestational age	Boys	326	23	7
	Girls	302	3	1
Weight	Boys	91	13	14
	Girls	81	2	2.5

The weights of the 25 preterm infants ranged from 800 to 2550 g (mean 1411 g) and gestation from 27 to 36 weeks (mean 30.7 weeks). Eight infants had been ventilated in the neonatal period for a maximum of 13 days; two infants had suffered intraventricular haemorrhage; and one had received an exchange transfusion. None had suffered from necrotising enterocolitis or any other abdominal pathology and none had developed chronic lung disease. In the whole group there were six twins—five boys and one girl, but no pairs of twins, although two of a set of male triplets were included.

Discussion

In this study 39% of all herniotomies under 6 months of age were carried out on preterm infants. We have shown a 10 fold increase in risk in infants born before 36 weeks' gestation and a 20 fold increase in very low birthweight infants. This is in keeping with the findings of other workers who have reported an incidence of up to 30% in very preterm infants.¹ It seems that larger preterm infants are also at risk. There has been disagreement as to whether the increased risk applies equally to both sexes—this study suggests that this is the case.

Persistent patency of the processus vaginalis or canal of Nuck is considered important in the development of inguinal hernia but as it is found in over 90% of all newborns² there must be additional factors operating in the preterm infant. Keith³ has suggested laxity of the inguinal ring as a factor. We speculated that increased intra-abdominal pressure due to problems such as necrotising enterocolitis, feed intolerance, or chronic lung disease could be

important. Our findings did not support this hypothesis.

This study confirms that inguinal hernia is a common complication in preterm boys. The risks of operation in a small infant who may have residual lung disease are obvious. For this reason treatment is often delayed, especially in areas where there is no ready access to specialist paediatric surgeons and anaesthetists. Complications, however, such as incarceration and strangulation are especially common in young infants and delay may have tragic consequences.⁴ It is important that doctors involved in the early care and follow up of preterm infants are vigilant. We would advise early operation, preferably by a specialist paediatric surgeon. If the diagnosis is made on the neonatal unit, operation before hospital discharge is recommended.

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Recurrent infections with IgG₂ deficiency

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SUMMARY An 11 year old girl with retarded growth, recurrent infections, bronchiectasis, and normal serum immunoglobulin concentrations had a combined deficit of the IgG₂ subclass and IgG and IgM specific antibodies. Immunoglobulin replacement was followed by clinical improvement. The importance of determining both IgG subclasses and antibody activity in patients with recurrent infections and normal serum immunoglobulin values is emphasised.

Normal concentrations of serum immunoglobulins in children being evaluated for recurrent infections are generally accepted as evidence of intact humoral immunity. Immunoglobulin concentrations, however, may be normal in the presence of subclass deficiency, as recently described for IgG₂ deficiency¹ or antibody deficiency, or both.² We describe an 11 year old girl who presented with recurrent respiratory tract infections, normal serum immunoglobulin concentrations, and a combined deficiency of IgG₂ and specific IgG and IgM antibodies.