seek medical care for symptoms that may have been due to a myocardial infarction.[12] If so, an increase in the proportion of less severe cases would have been expected. Since the mortality increased as much as the incidence, however, this seems to be a less likely explanation. Furthermore, a decrease in lethality might also have been expected. A scrutiny of case fatality rates, however, showed no such decrease.

The increases in incidence and mortality rates appeared to be real and were probably not due to an increasing tendency to seek hospital treatment or to make the diagnosis. The reason for the increase remains unknown. As regards treatment, the proportion of patients with treated and well controlled hypertension seems to have risen.[13] Nevertheless, we do not know whether the prevalence of hypertension increased during the period. The use of beta-blockers increased considerably during the period. The effect of this on morbidity and mortality from myocardial infarction is, however, low.[13 14] The effect of coronary bypass operations on the disease is probably negligible.[13] It is also probable that the improvement, if any, in mortality rates due to the introduction of coronary care units occurred mainly before the period studied.

As regards risk indicators, a favourable trend is reflected in the decline in the proportion of smokers in the Swedish population during the period according to surveys carried out by the National Smoking and Health Association. An unfavourable trend, however, is the increase in the proportion of fat in the diet of the population during the past four decades at least according to official statistics. In Sweden the years 1974-80 were characterised by social and economic instability which was unknown to Swedes, who are accustomed to the idea of almost total social security. According to Brenner socioeconomic factors contributed to changes in mortality from coronary heart disease.[15] Possible neuroendocrine mechanisms underlying these associations are, however, largely unknown. Further research is needed into the trends of known risk factors of cardiovascular disease.

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SHORT REPORTS

Screening the newborn for Duchenne muscular dystrophy: parents' views

Duchenne muscular dystrophy is a crippling, progressive, and ultimately fatal neuromuscular disease. It is inherited as an X linked recessive trait in two thirds of cases, the remainder being new mutations. Although the disease is present at birth, it is often not diagnosed until the boy is at least 4 or 5 years old. One of the diagnostic features of the disease is an extremely high serum creatine kinase activity. A sufficiently sensitive method of measuring this activity that is generally agreed to be suitable for use in neonatal screening for the disease is available.[1] Pilot studies using this technique have been implemented in some countries, but ethical concerns have been expressed since there is no treatment that will benefit the sufferer. There is also concern regarding the psychological effects of early diagnosis. We asked parents of boys with the disease whether they were in favour of screening for the disease and, if they were, when they thought it should be carried out.

Methods and results

We interviewed 69 parents from 53 families of boys suffering from Duchenne muscular dystrophy to explore their views of neonatal screening, services, and their experiences at the time of diagnosis.[2] All parents were asked their opinions on the desirability of screening for the disease and, if they were in favour of screening, whether it should be carried out close to birth, at 18 months, or at some other time.

In 75% of the families (90% of those who expressed an opinion) the parents were in favour of neonatal screening. This finding is similar to the findings of Beckmann and Scheuerbrandt.[3] Of the four parents who thought that screening should take place at some other time, three said it should be carried out at between 1 and 3 months. Three parents thought that in their case earlier diagnosis would have been undesirable.

Parents were also asked the reasons for their views. Five major reasons were given by those who stated a preference for neonatal screening: (1) it prevented parents experiencing the negative effects of long delays between the first symptoms and diagnosis that are associated with the present diagnostic system; (2) parents had a "right" to be informed as soon as scientifically possible; (3) it prevented the birth of further affected sufferers of the disease to carrier mothers and their female relatives; (4) it had practical advantages—for example, the opportunity to buy or rent appropriate housing; and (5) it had emotional advantages.

Comment

No control group was used in this study, and the views of the parents on the advantages and disadvantages of neonatal screening were not based on any experience of such screening. The parents had, however, experienced a diagnostic system that many had found unsatisfactory.

Two major ethical objections to neonatal screening have been raised: firstly, there is no treatment that will benefit the patient; and, secondly, diagnosis might have psychological effects, including rejection or overprotection of the child. Although no cure exists, there is an argument that with a disease as devastating as Duchenne muscular dystrophy "the family is the patient."[4] The potential benefits of neonatal screening to families include early support and genetic counselling. Two important influences on how parents react to the diagnosis of a serious disease are the way in which they are told of the diagnosis and how they are supported subsequently. Our study disclosed dissatisfaction with both these points.[5] Our findings mirror those of studies of other handicapping conditions, which

consistently report that parents would prefer to be informed of the diagnosis as early as possible.

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Postoperative analgesia for circumcision

Local anaesthetics, often used to relieve pain after circumcision, are usually administered by caudal epidural injection[1] or by block of the dorsal nerves of the penis.[2] Both techniques are used in our hospital, and we compared the potentially less hazardous penile block with the caudal approach.

Patients, methods, and results

We studied 50 boys (mean age 4·5 (range 2-12) years) undergoing circumcision for medical indications as day patients. After admission they were interviewed with their parents by one of us (JW) and informed consent obtained. The patients were premedicated with oral diazepam 200 μg/kg, and anaesthesia was induced with thiopentone 5 mg/kg followed by nitrous oxide, oxygen, and halothane. They were randomly allocated to one of two groups to receive caudal or penile block immediately before surgery. In both groups 0·5% bupivacaine without adrenaline was used; for caudal block 0·5 ml/year of age was administered,[1] and penile block was achieved with 0·2 ml/kg, modifying the method described by Bacon.[2] Clean, no touch techniques were used.

A 23 gauge needle was inserted just below the lower border of the pubic arch and advanced midway between the arch and the root of the penis, piercing Buck's fascia. Two thirds of the analgesic was injected after aspiration to exclude puncture of blood vessels. After partial withdrawal of the needle the remaining one third was distributed subcutaneously on each side of the anterior aspect of the root of the penis to anaesthetise fibres arising from the genitofemoral and ilioinguinal nerves.

After operation (the mean duration of which was similar in each group) analgesia was assessed continuously for five hours by the anaesthetist (JW) who had conducted the preoperative interview and induced anaesthesia; she had then left the anaesthetic room so that she did not know which type of analgesia had been used. Before the child left hospital his parents received a form for assessment of analgesia at home and some paracetamol.

The table shows the results. The time from administration of the block to first evidence of pain was assessed by the anaesthetist (in hospital) or parent (at home), the need for supplemental analgesia in hospital (papaveretum) by the anaesthetist, and the quality of the night's sleep and need for paracetamol after discharge by the parents. Statistical analysis was performed using a single tailed t test and χ^2 tests with Yates's correction.

We found no significant difference between caudal and penile block in the time to onset of postoperative pain, requirement of further analgesia in hospital or at home, or in quality of sleep on the night after operation.

Comparison of effects of caudal and penile blocks

	Caudal block (n = 23)	Penile block (n = 27)	p
Mean (SD) time to onset of pain (minutes)	766 (627)	727 (653)	NS
No of patients requiring papaveretum	5	3	
Quality of sleep:			
Good	13	12	NS
Bad	10	15	
Paracetamol required*:			
Yes	13	13	NS
No	5	11	

*Excludes those given supplemental analgesia in hospital.

Comment

Caudal analgesia provides better pain relief in the immediate postoperative period than morphine[3] or buprenorphine administered at induction of anaesthesia.[4] Penile block reduces the need for analgesics in the first 12 hours after surgery.[5] Both techniques anaesthetise the prepuce—caudal analgesia by segmental block (sacral nerves 2, 3, 4) and penile block by blocking nerve conduction—although some fibres from the ilioinguinal and genitofemoral nerves may contribute to the innervation.

Serious complications may occur after caudal analgesia, though their incidence is low. These include sepsis, dural puncture, transient paralysis, and undetected puncture of blood vessels with ensuing haematoma, which may not be detected early when patients are treated on a day case basis. One of our patients suffered distressing weakness of the legs after caudal block despite the small volume of analgesic used. Two patients who received penile block had small haematomas at the base of the shaft of the penis.

Penile block during general anaesthesia for circumcision may be recommended as a simple procedure providing analgesia as reliably and effectively as caudal block and may be considered safer for day case surgery.

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Isosorbide dinitrate and isoxsuprine in exercise induced asthma

Pathogenesis of exercise induced asthma remains uncertain. Respiratory heat loss[1] is undoubtedly important. Whether it stimulates vagal receptors or causes degranulation of mast cells has not been established. Significant rises in neutrophil chemotactic factor and plasma histamine concentrations have been shown in response to exercise, suggesting that mediator release may be a factor.[2]

Beta agonists and sodium cromoglycate are effective inhibitors of exercise induced asthma but have effects on both the bronchial smooth muscle and the mast cells. We have studied the effects of the two smooth muscle relaxants isoxsuprine and isosorbide dinitrate given by inhalation as compared with sodium cromoglycate and salbutamol.