

consensus decision is going to be reached the best course is to thank members for a useful discussion and say that you will put the matter on the agenda for the next meeting for reconsideration. You may think it helpful to ask any member who has been particularly vocal to prepare a paper on the subject for that meeting. Alternatively, if it is an important matter, you can set up a subcommittee or working party or, if it is of little consequence, you can offer to reconsider it should the need arise.

The draft minutes should be sent to members within three or four days with a courteous letter thanking them again for attending and asking them to let the secretary have any amendments they wish made. Sometimes a member of your committee

may never attend. Possibly he has another standing commitment at the same time which is more important to him, or he may just be too busy. If he never sends an apology, however, it means that he has no real interest in the work of the committee. In either case you should write to the body he represents, pointing out the difficulty, and asking if they wish to make another nomination.

Finally, as chairman, don't expect any plaudits or gratitude but be prepared to dodge brickbats, for even if all your committee's decisions are the right ones they will displease a few.

Eventually this series will be collected into a book and hence no reprints will be available from the authors.

Clinical Topics

Early detection of scoliosis

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Adolescent idiopathic scoliosis is usually a right-sided curvature of the lower thoracic spine that affects mainly girls. It leads to a cosmetic deformity and in severe cases to respiratory impairment and premature death. The deformity usually deteriorates during growth, especially during the adolescent spurt.

The quoted incidence varies from 0.13%¹ to as much as 13.6%^{2,3} but the incidence of curves needing treatment is about 3-6 per 1000.³ In 1968 Wynn-Davies⁴ showed an increased incidence of adolescent idiopathic scoliosis in siblings of patients with the condition. In 1972 Cowell *et al*⁵ showed that by examining siblings' curves scoliosis could be detected at an early stage, with the result that management was made easier. Since then they have extended their screening to include adolescents at school so that adolescent idiopathic scoliosis may be diagnosed as early as possible. The curvature is readily detected clinically by bending the patient forward and looking for rib asymmetry.

To investigate at what stage and by whom adolescent idiopathic scoliosis is diagnosed in the UK we reviewed the records of patients who attended the scoliosis unit at the Royal National Orthopaedic Hospital, London.

Patients and methods

Details of new patients who attend the scoliosis unit are recorded on data sheets, which are then stored in a computer. This information includes the age when the deformity was first noticed, the person who made this observation, and the Cobb angle of the curve on

the initial anteroposterior spinal radiograph taken with the patient standing.

The relevant data from 260 patients with adolescent idiopathic scoliosis who attended over the past five years was retrieved from the computer.

Results

Of the 260 patients, 200 were girls. The average age of the whole group was 14 years (range 10.6-20.1 years). The patients were divided into four groups depending on how the curve had first presented. Most patients were referred to the scoliosis unit shortly after the curve was detected: group 1 comprised those whose condition was discovered by a doctor, usually the general practitioner, during an examination for another reason; group 2 those whose scoliosis was diagnosed at a routine school medical examination; and group 3 those whose curve was first noticed by family or friends. Group 4 comprised patients who were referred to the scoliosis unit late, after treatment or observation elsewhere.

The number of patients in each group, their ages, and the Cobb angles of their curves are shown in the table.

Details of patients referred to scoliosis unit with adolescent idiopathic scoliosis

Group	No of patients	Mean (\pm SD) age (years)	Mean (\pm SD) Cobb angle	% Under 40°
1	22	14.1 \pm 1.0	56 \pm 18	12
2	21	12.9 \pm 1.0	49 \pm 15	25
3	172	14.0 \pm 1.8	56 \pm 16	15
4	46	15.5 \pm 1.5	65 \pm 20	5

Discussion

Conservative treatment of adolescent idiopathic scoliosis using modern cosmetic braces or domiciliary Cotrel traction is most effective with curves of 20° to 40°. Most curves with a Cobb angle over 50° should be treated surgically by correction and fusion with a Harrington rod, particularly if the patient is still growing. Almost all the Cobb angles in patients referred to the scoliosis unit came within the surgical range; even

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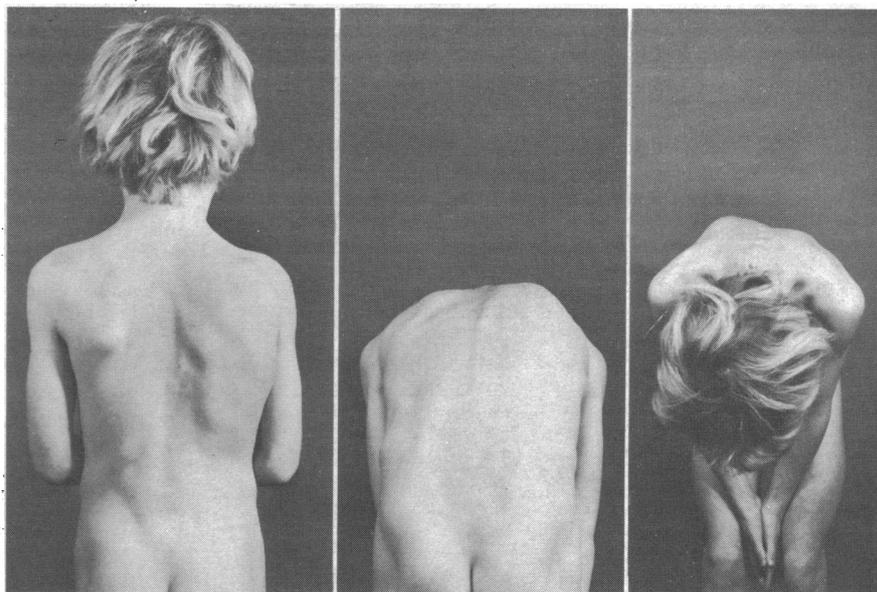
among those diagnosed at a school medical examination only 25% had an angle of less than 40°.

Patients in group 4 had the highest average Cobb angle. In some a considerable deformity was to be expected because what was thought to be adequate conservative treatment had failed. But others were referred after a slowly deteriorating deformity had been observed but left untreated for several years.

This pattern of fairly severe scoliosis requiring surgery suggests that adolescent idiopathic scoliosis needs to be diagnosed earlier so that children can benefit from conservative treatment. Clearly school screening programmes need reappraising so that the condition can be diagnosed early.

Idiopathic thoracic curves are best diagnosed in the early stages by asking the patient to flex the spine by bending down. The spine is then viewed tangentially, when asymmetry of the posterior ribs is evident. A child with what appears to be a doubtful or mild curve when upright may have quite pronounced rotation on flexion (see figure). Any patient whose curve is found to be deteriorating as judged by comparing the Cobb angle on sequential spinal radiographs should be referred to an orthopaedic centre with a scoliosis unit.

We thank Mr Charles Manning for allowing us to retrieve the information on patients under his care and for his help in this study. We are grateful to the Medical Records Department.



Comparatively mild adolescent idiopathic scoliosis with pronounced rib rotation seen tangentially.

References

- ¹ Kane, W J, and Moe, J H, *Clinical Orthopaedics and Related Research*, 1970, **69**, 216.
- ² Brooks, H L, et al, *Journal of Bone and Joint Surgery*, 1975, **57A**, 968.
- ³ Lonstein, J E, *Clinical Orthopaedics and Related Research*, 1977, **126**, 33.
- ⁴ Wynn-Davies, R, *Journal of Bone and Joint Surgery*, 1968, **50B**, 24.
- ⁵ Cowell, H R, Hall, J N, and McEwan, G D, *Clinical Orthopaedics and Related Research*, 1972, **86**, 121.

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What precautions should be taken before giving a dental anaesthetic to a patient who is taking vitamin E? Is there any particular danger from hyperthermia?

In man vitamin E deficiency does not produce recognisable disorders and taking excessive amounts has not been thought to produce toxicity. James,¹ however, has reported the death of a patient taking vitamin E obtained from a health food shop. Preoperatively his blood vitamin E concentration was about twice normal. During an anaesthetic in which suxamethonium and halothane were given he developed malignant hyperpyrexia (MH). There was no family history of MH. The link between vitamin E intake and the development of MH is speculative, however. Until further evidence is available there is the problem of selecting an anaesthetic technique for patients taking the vitamin.

The following precautions seem advisable. Firstly, take a careful history of the duration of vitamin E treatment and ascertain if any anaesthetics have been given in this time. If they have and have included the known triggering agents for MH report the successful outcome to the journals. Secondly, ask about any family history of adverse responses to anaesthesia; this should detect any familial history of MH. Thirdly, especially for dental surgery, consider local anaesthetic techniques, perhaps supplemented with some sedative. Fourthly, if general anaesthesia is needed stop the patient taking the vitamin for two weeks. This will allow metabolism and excretion of the vitamin.² Should none of these be possible use a general anaesthetic technique that avoids using known triggering agents, such as suxamethonium and halothane,³ and measure the patient's temperature during the anaesthetic. If it rises lower the patient's temperature, stop all inhalational agents, give oxygen by artificial ventilation, and correct the metabolic acidosis. Such measures will only be available in specialist centres.

¹ James, P, *British Medical Journal*, 1978, **1**, 1345.

² Simon, E J, et al, *Journal of Biological Chemistry*, 1956, **221**, 797.

³ Atkinson, R S, et al, *A Synopsis of Anaesthesia*, 8th edn, p 834. Bristol, Wright, 1977.

A man of 72 has dermatomyositis. He also has a hiatus hernia, successfully controlled with magnesium carbonate, but otherwise is in excellent health. What treatment is advisable for the dermatomyositis?

Dermatomyositis can vary considerably in clinical presentation.¹ The patient is said to be in excellent health so observation alone may be sufficient. If there is any evidence, however, of progression of lesions treatment would be with adrenal corticosteroids, usually prednisolone. Such treatment is generally considered dangerous when there is any question of peptic ulceration or other upper gastrointestinal tract lesions but the dangers may have been exaggerated.² Parenteral treatment, however, probably does lessen the risks, and there are satisfactory preparations—for example, methylprednisolone acetate (Depo-Medrone)—which can be given once or twice a week.

¹ Ansell, B M, in *Copeman's Textbook of the Rheumatic Diseases*, ed J T Scott, 5th edn, p 923. Edinburgh, Churchill Livingstone, 1978.

² Conn, H O, and Blitzer, B L, *New England Journal of Medicine*, 1976, **294**, 473.

An overweight 72-year-old woman had a moderately severe myocardial infarction eight months ago. She made a good recovery and is now able to do most of her housework, stair climbing, and walking on the level without dyspnoea. She is not hypersensitive, has no angina, and no evidence of cardiac failure. Is there any medical reason why she should not fly to the USA to visit relatives?

I see no reason why this patient should not fly as she has obviously made an excellent recovery. She should, however, send a medical report to the airline concerned. This will ensure a seat in the non-smoking section of the aircraft and should she need oxygen this will be immediately available from the aircraft supply. It will also ensure that the cabin crew is briefed. A wheelchair at the airport is advisable. I am convinced that the pressures, tensions, and crowds at airports cause more stress than sitting quietly in an aircraft.