

vexity of the dorsal curve to the right, and the lumbar to the left. 3. 90 per cent. of cases are in girls.

Lonsdale, beside mentioning debility and faulty habits of dress, lays great stress on the greater expansion of the right lung and the solid resistance of the underlying liver as being a cause of rotation of the ribs.

Barwell put the blame on the exaggerated use of the right serratus magnus, as well as faulty position and the carrying of weights by the right arm and shoulder. Brodhurst attaches great importance to stays and corsets as a cause. Other causes mentioned are spastic contraction, paralysis of muscles, weight of the heart on the left side, debility etc. All unite however in believing that one of the main causes, apart from those purely mechanical, such as shortening of one leg, old empyema or pleurisy; is muscular debility, inducing faulty positions of sitting and standing. The causes given are many, but the number of methods of treatment is what Dr. Osler would term "suspiciously large." Division of the erectores spinal muscles, has been practised with disastrous results. Mechanical appliances of all degrees of complexity and rigidity have been designed, forcible extension, recumbancy, the prone position, slings and sloping seats, have had their innings, elastic jackets have been worn, while massage, calisthenics and gymnastics have been used with varying degrees of success.

Before any treatment can be accurately tested certain measurements and tests should be made to give a starting point and enable the surgeon to check off his results. Lateral deviation of the spinous processes at various levels, rotation of the ribs and lumbar vertebrae; flexibility in rotation should be ascertained.

The difficulties in the way of getting accurate measurements are great, but graphic tracings first described by Dr. Seaver, by means of an adaptation of the pantograph may be obtained which are perhaps more accurate than any means that I have as yet seen designed. By this means cross sections of the body at different levels can be obtained showing the rotation at these levels. Lateral deviation is shown in such a way that a glance will show its amount at any level.