British Scoliosis Society Executive

Position Statement on Vertebral Body Tethering for Scoliosis

Vertebral Body Tethering was introduced in the US about five years ago. It is a treatment used in children with scoliosis (a lateral curve of the spine associated with rotation). It involves placing screws in each vertebra (bone of the spine) at the front of the spine over the length of the curve. The screws are connected by a flexible 'cord' to partially correct and tether the long side of the curve whilst allowing growth on the concave (short side) of the curve potentially producing further correction of the scoliosis.

Traditional, established surgery usually involves placing screws and rigid rods into the back of the spine to achieve correction and a fusion of the spine. Anterior surgery for scoliosis also involving fusion was developed 50 years ago and has proved equally successful in certain patient populations. These techniques have been refined over the years with some 'modernisation' as spinal instrumentation has improved. There are studies showing high patient satisfaction, excellent long-term results and low rates of complications which makes it more difficult for a new treatment to show better outcomes. However, research and development in newer procedures that straighten the spine but also allow growth and flexibility are an aim of scoliosis surgery internationally.

There are no long-term results for Vertebral Body Tethering although early results in the US and UK look promising. However, we need to introduce this technique in a controlled and responsible way. We urge NICE to review this procedure and for NHS England to develop a Policy for introduction. The BSS feels that the introduction of non-fusion instrumentation for scoliosis should be done in a small number of Centres who would be committed to careful patient selection and informed consent. These Centres would use the British Spine Registry to monitor the results of surgery and any complications for many years before any decision regarding wider adoption.