

ADULT SCOLIOSIS OBSERVED AND TREATED BY FOCOS IN GHANA, WEST AFRICA

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Adult Idiopathic Scoliosis

Adult idiopathic scoliosis patients have the burden of living with their deformities for most of their life. Most adults have been aware of their spine deformities since adolescence. A small percentage of adults develop scoliosis due to degenerative conditions of the spine. Other causes include osteoporosis, infections, trauma, and neuromuscular disorders such as polio and cerebral palsy.

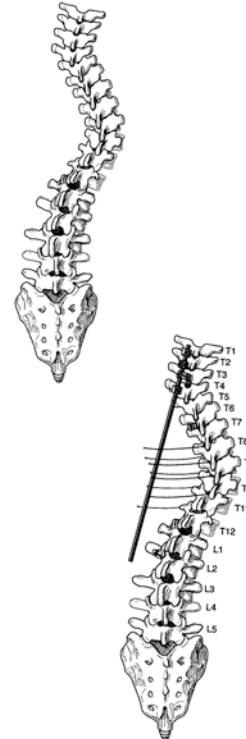
At times, they have been treated previously for their deformity but now are developing pain, radiculopathy or neurologic claudication and progression of their deformity. Adults usually present to a physician with complaints of pain, progressive deformity, breathing difficulty and neurologic symptoms such as leg pain, weakness or difficulty walking. Curves exceeding 50 to 60 degrees in the thoracic spine tend to worsen over time. Breathing difficulties are usually associated with thoracic curves that exceed 60 degrees.

Non operative management include exercises, use of mild analgesics for pain, and temporary use of braces and corsets.

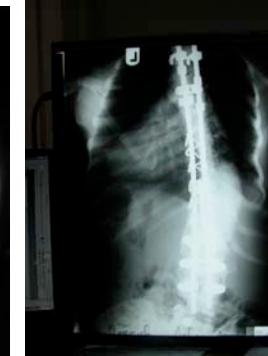
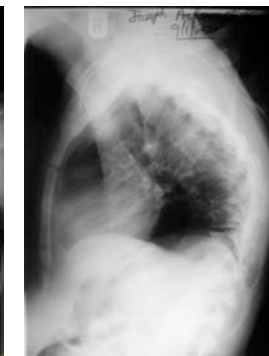
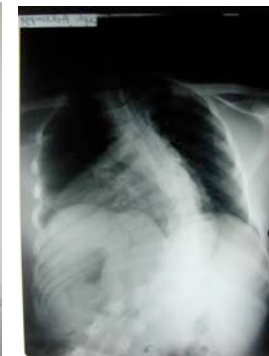
Surgical treatment is reserved for the adult patient who has a progressive deformity that is unacceptable to the patient, pain, breathing problems and symptoms of spinal stenosis (narrowing of the spinal canal) that interfere with walking ability.



- The major categories of adult scoliosis include:**
- A) idiopathic scoliosis in young adults < 40 years without degenerative changes who have had spinal deformity since adolescence,
 - B) The older adult idiopathic scoliosis patient > 40 years of age with superimposed degenerative changes
 - C) The elderly adult patient who has had no pre-existing spinal deformity and has developed "de novo" scoliosis due to degenerative changes of the thoracolumbar spine.



Mr. Acheampong, a 28 year old male school teacher from the Ashanti region of Ghana was initially seen at the AFICIA clinic at Kunsu.



He had been aware of his curve since he was a teenager, had sought many opinions in the country and was told there was no specialist or facility able to deal with such complex deformity. His complaints included pain and difficulty breathing. He also felt bashful going out or removing his clothes in public. FOCOS assessed his condition, and realizing that Mr. Acheampong had no resources to cover a surgical expense of about \$100,000 (US dollars), placed him on a FOCOS sponsorship. He could not even pay the minimum contribution expected from surgical patients (\$3,000 US dollars) to cover the local cost.



After

Operative Treatment

Surgical procedures include posterior fusion with instrumentation for mild, flexible curves (50 to 80 degrees).

Severe, rigid curves are best treated by combined anterior and posterior fusions.

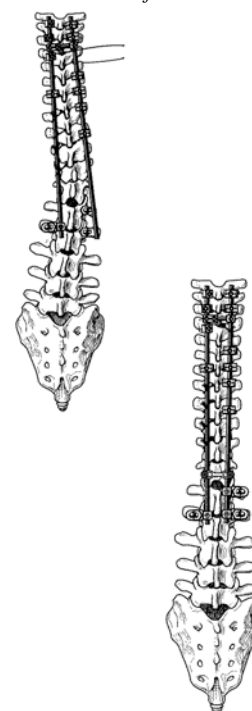
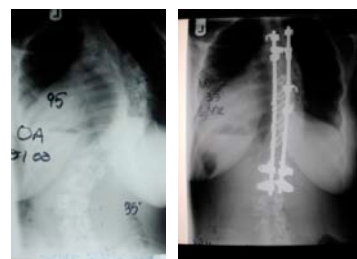
In general, complications are higher for the adult patient undergoing surgical treatment than the adolescent idiopathic scoliosis patient, and this must be taken into consideration in the selection of the adult patient for surgical treatment.

The primary goals of surgical treatment for the adult idiopathic scoliosis patient are:

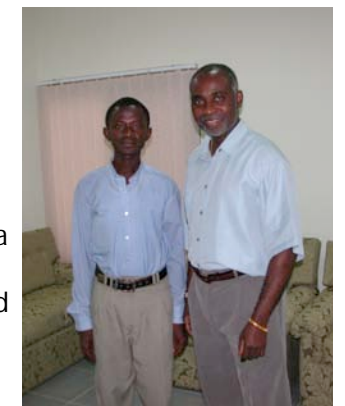
- 1) to correct and stabilize a progressive spinal deformity
- 2) improve or restore coronal and sagittal balance
- 3) obtain a solid fusion of the spine
- 4) relieve pain and decompress neural elements associated with spinal stenosis.

Factors to be considered in surgical treatment would include:

- 1) the preoperative co-morbidities
- 2) patient expectations
- 3) levels to be fused and instrumented based on symptoms and diagnostic imaging.



With FOCOS's full support, he underwent successful surgery by the FOCOS team headed by Dr. Munish Gupta at the Korle-Bu Hospital in January 2001. During a Ghana TV interview, Mr. Acheampong expressed his gratitude to the FOCOS team for their mission to save lives and for a miracle he had been hoping for all his life. Now a few inches taller and straighter, he is ready to enjoy a productive life and teach the children of the future to aspire to become successful and productive members of society in which they live.



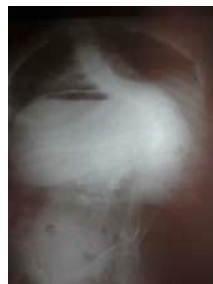
Mr. Acheampong and Dr. Boachie-Adjei



Compression of the neural elements, if present, is usually found in the compensatory lumbar curve. These patients present with an average age of forty. Evaluation of these patients requires routine and thorough radiographic and neurologic examination. Some determination of the painful area of the spine with deep palpation is needed.



Curves that are greater than fifty degrees tend to progress on the average of one to two degrees per year.



Patients with scoliosis tend to have similar incidence of back pain as compared to adults without scoliosis, but adult idiopathic scoliosis patients tend to have more severe pain with greater recurrence.