

Introduction

Thoracic stenosis is a severely disabling condition that is often missed. Unfortunately by the time the condition is diagnosed severe impairment has developed, and reversal is meager.

Methods

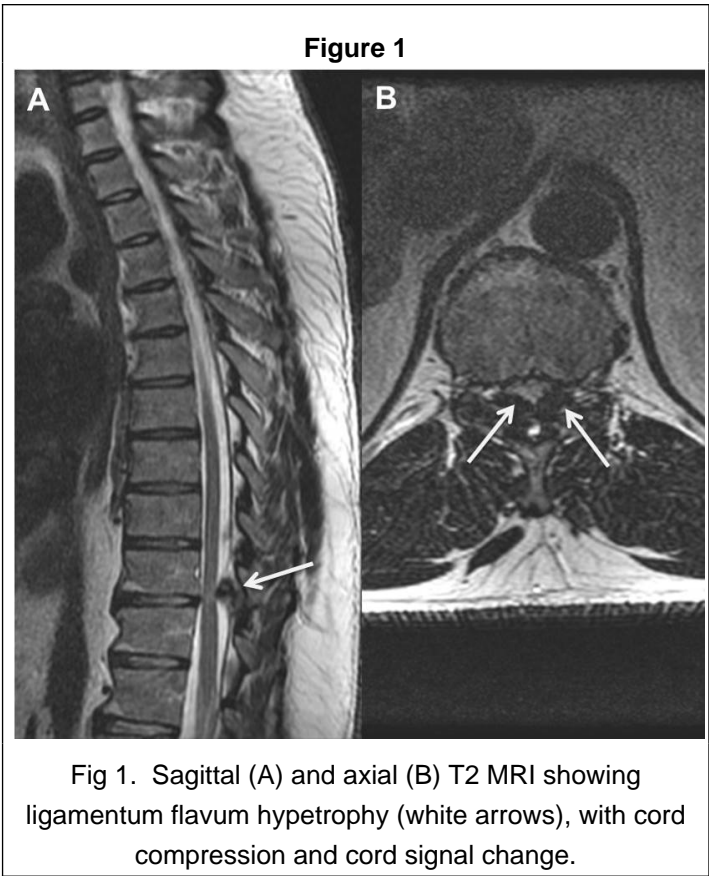
From 2003 to 2014 we identified 45 patients with thoracic stenosis who have undergone operative intervention. Patients presented with varying degrees of myelopathy with sensory, motor, and sphincter disturbance. There were 16 women and 29 men, with a mean age+/- SD of 64.4+/- 15.8 years. Thoracic stenosis was diagnosed with MRI in 32 of the 45 patients, and with myelography in the last. 10 of 32 patients with MRI showed myelomalacia. 5 of the 32 patients had had previous spinal surgery. Patients were graded pre- and postoperatively with the ASIA impairment scale from A to E (1-5), and the Japanese orthopedic Association score for myelopathy (0-11).

Results

All patients had a laminectomy for decompression and in 18 instrumentation and fusion when deemed necessary for instability. Five required reoperation and one patient who underwent laminectomy, had to undergo instrumentation and fusion for instability 6 months later. The preoperative ASIA and JOA scores were 4.2+/-0.7 and 7.4+/-2.4 respectively. At last follow-up, these values were 4.3+/-0.8 and 8.2+/-2.5.

Demographics			
	Showned Improvement	No improvement	p-value
age	64±15	65±18	0.11
Gender M/F	23/9	6/7	-
BMI	33.1±5.3	32.7±7.4	0.42
Pre-op ASIA score	4.1±0.6	4.4±0.8	0.93
Pre-op JOA score	6.71±2.4	8.9±1.9	0.16
Post-op ASIA score	4.3±0.7	4.2±0.9	0.006
Post-op JOA score	8.3±2.6	8.0±2.4	0.04
Durage of syptoms	14.4±24.4	4.1±4.8	0.29
LOH	5.4±3.8	6.1±2.8	0.33

Thoracic stenosis/surgery detail		
	Improvement	No improvement
Adjacent Level	1	1
Upper Thoracic	4	3
Middle Thoracic	5	1
Lower Thoracic	23	9
Laminectomy	19	8
Instrumentation	13	5
Re-operation	3	2



Conclusions

Despite surgery, thoracic stenosis with deficit is associated with minimal improvement. Thus early diagnosis with appropriate surgery is paramount for clinical improvement. Owing to instability, in addition to decompression, surgery may necessitates instrumentation.

Learning Objectives

1. Thoracic stenosis often present with spinal instability.
2. Early diagnosis and treatment of thoracic stenosis is paramount for improvement.