***Comparison of radiography, CT, and MRI for the evaluation of spinal involvement in Morquio A*[5]**

	Strengths	*Limitations*
Radiography	• Assess bone malformation • Assess spinal canal stenosis • Assess malalignment • Flexion-extension instability • Rapid • Inexpensive	• Poor soft tissue discrimination • Limited by overlapping structures • Ionizing radiation • Limited to ossified structures
CT	• Rapid (may obviate need for anaesthesia) • Multiplanar imaging of bony structures • Alternative method for assessing flexion-extension instability in difficult cases (recommend low radiation dose protocol[a]) • Can assess some soft tissue components of canal stenosis and cord compression with appropriate filtering • Preoperative planning	• Suboptimal for visualizing soft tissues and the spinal cord • Ionizing radiation • More expensive and less accessible than plain film radiography
MRI	• Multiplanar imaging • Ideal for soft tissue imaging • Preferred method for assessing spinal cord compression and myelomalacia • Flexion-extension imaging directly visualizes spinal cord • Demonstrate venous collaterals • Non-ionizing radiation	• Long imaging times • May require anaesthesia • Metal and motion artifacts • Limited access • Expensive

Adapted from Solanki, *J Inherit Metab Dis*, 2013.

[a]Focus on area of interest only, with lowest possible dose technique to yield adequate signal-to-noise at bone algorithm displayed at bone window.