

### Title and Author

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Title: Chordomas

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### Introduction or Patient History

This outpatient was a 78 year old male that has had some difficulty with tenderness while sitting and when palpated at the level of his left buttocks and coccyx. His symptoms have been going on for years, but he has ignored them. The patient stated he has had an increase in constipation over the years. He has no problem urinating or walking. His weight is unchanged, and he maintains a healthy appetite. His doctor ordered a MRI bony pelvis without and with contrast.

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### Patient Preparation and Scan Set up

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A Philips 3.0 Telsa MR scanner was used for this study. The patient was screened prior to the study to ensure there was no metal or implants in his body that could harm him during his scan. The patient was positioned supine with feet first into the scanner. The sense XL 16 channel body coil was used for this scan. The patient was positioned so that his pelvis was in the center of the coil. Tape was placed around the patient's feet to ensure they were not to move. The patient was instructed to not move during the scan. Ear plugs were provided for the patient to help protect his hearing.

## MR Imaging Parameters

20 mL of magnevist was used for the post contrast images.



Sequence	FOV	TR	TE	Slice	Spacing	Matrix
Coronal T1 SE	36	612.9	20	5	.5	292x343
Coronal Stir	36	11, 139	60	5	.5	328x283
Axial T1 SE	34	612	20	6	.6	292x272
Axial T2 FS SE	34	6617	62	6	.6	292x272
Sagittal T1 SE	27	612	20	5	.5	228x220
Axial T1 + C SE	38	586	20	6	.6	292x272
Coronal T1 +C SE	36	586	20	5	.5	292x343
Sagittal T1+ C SE	27	586	20	5	.5	228x220

## Findings and Discussions

The results of the bony pelvis MRI concluded a large soft tissue mass nearly replacing the sacrum in its entirety. The mass is also extending into the sciatic notch and is anteriorly displacing the adjacent neuronvascular bundle. This mass measures 14 cm transverse x 12 cm AP x 12 cm in length. The adjacent paraspinal muscles are also invaded by the mass.

A joint mass is located in the left Ilium and measures 1.9 x 22 x 29 cm and likely represents a skip lesion. Skip lesion is a term used to describe a condition that affects an area of the body at more than one level but not necessarily adjacent segments or in a continuous line. No other areas of abnormal contrast enhancement suggest additional metastases. No pathologic enlarged pelvic lymph nodes are noted. A mild amount of edema is within the right gluteus maximus muscle, most likely related to the soft tissue mass.



## Conclusions



After reviewing this case study, I have learned that chordomas are rare, iatrogenic tumors that usually occur in the bony spine or base of the skull. About one half occur in the sacrococcygeal region and one third occur at the base of the skull. They are malignant and demonstrate slow growth patterns with the ability to metastasize to other organs, usually the lungs. Although they are mostly slow-growing, chordomas can be locally aggressive.

Chordomas account for 1% of all Central Nervous System tumors. These tumors are thought to arise from primitive notochordal remnants, which is an indentation of the vertebral end-plate indicating the site of recession of the notochord into the intervertebral disc.

The main symptom of a chordoma is pain. If the chordoma is located in the sacrum, as is this patient's, bowel and bladder changes can also occur. Surgery is the best option for ridding of this tumor. Unfortunately, the location of this patient's tumor makes it impossible for a complete resection.

## References



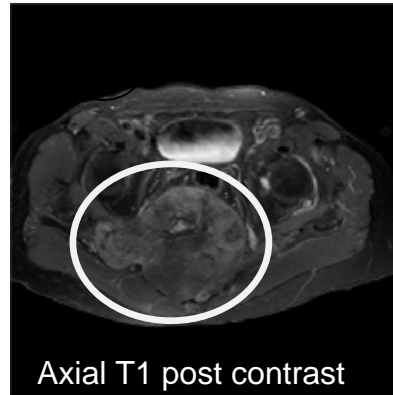
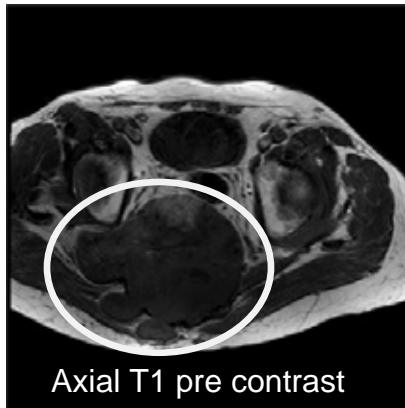
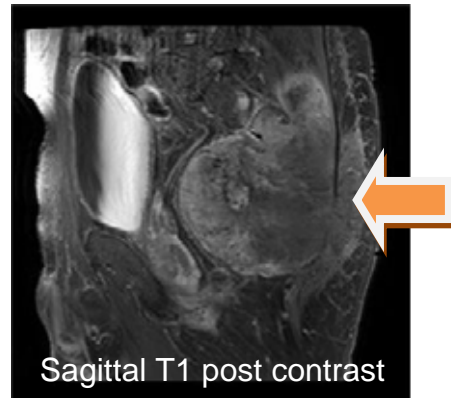
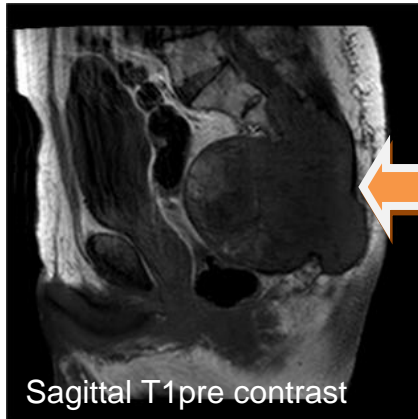
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## Images



As you can see from the axial images above, the mass has engulfed most of the sacrum.

