Adenocarcinoma with Intestinal and Pancreatobiliary Features Arising from a Sacrococcygeal Teratoma in an Adult Female: A Case Report

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Introduction

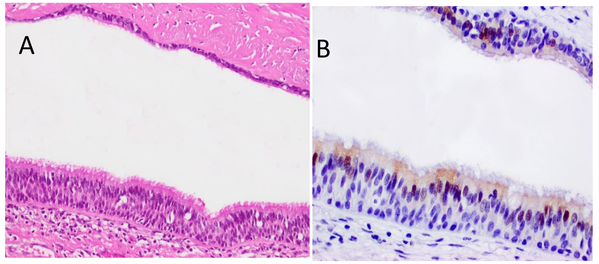
- Sacrococcygeal teratomas (SCTs) are the most common extragonadal germ cell tumors, predominantly found in neonates and children and are exceedingly rare in the adults.
- SCTs are typically benign but adults face a 1–12% risk of malignant transformation, particularly in endopelvic tumors.
- Adenocarcinoma and squamous cell carcinoma are the most most common malignant transformations.
- Here we present a rare case of invasive adenocarcinoma with intestinal and pancreatobiliary features arising from a SCT in a 64-year-old woman.

Results

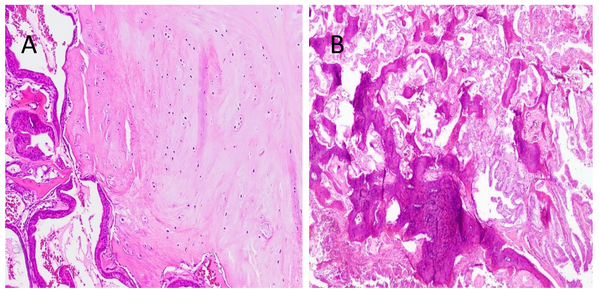
- A 64-year-old female, with a history of a congenital sacral lump excised at age 2, presented with a rapidly enlarging mass and purulent drainage in the same area.
- A CT scan revealed a lytic lesion involving the coccyx and lower sacrum, accompanied by an ill-defined soft tissue mass measuring 4.7 × 5 × 6.3 cm.
- Histologic evaluation revealed a cystic neoplasm comprised multilayered, mucin-producing intestinal-type glands exhibiting architectural complexity, cytological atypia, and stromal invasion.
- These glands were IHC-positive for CDX-2, faintly positive for CK7, and retained SMAD4 expression.

Results

- A separate population of infiltrative glands, growing in a disorganized manner, demonstrated strong CK7 positivity and loss of SMAD4 expression, consistent with adenocarcinoma exhibiting pancreatobiliary differentiation.
- In addition, benign pseudostratified ciliated columnar respiratory epithelium (TTF-1 positive by IHC), along with abundant woven bone, hyaline and fibrocartilage were identified, confirming the diagnosis of a preexisting sacrococcygeal teratoma.

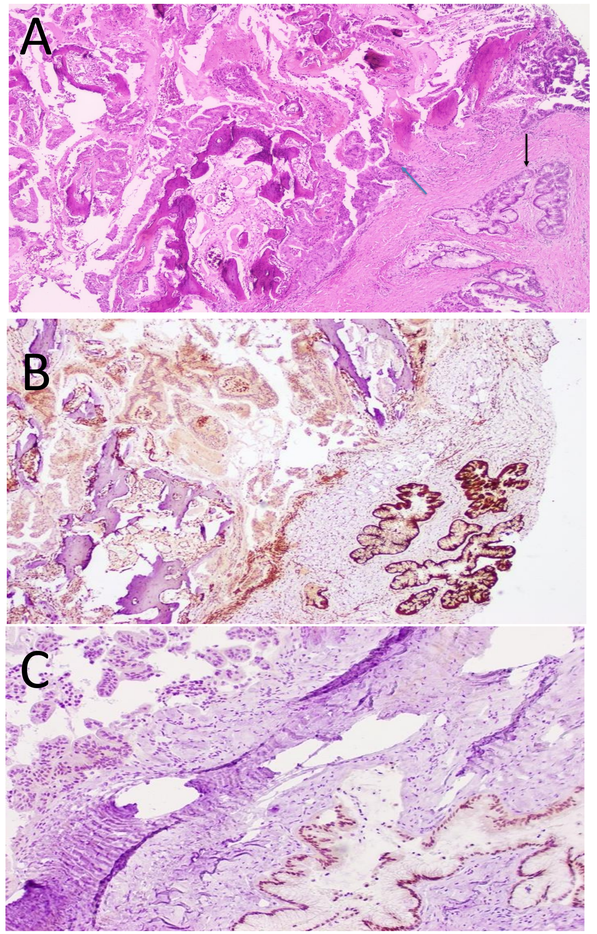


(A) Pseudostratified ciliated columnar respiratory epithelium on H&E stain. (B) Respiratory epithelium highlighted by TTF-1 immunostaining.



(A) Fibrocartilage and (B) woven bone infiltrated by the adenocarcinoma component.

Results (Continued)



(A) Intestinal-type mucinous glands (black arrow) and pancreatobiliary glands (blue arrow) on H&E stain. (B) CDX2 immunostaining shows positivity in intestinal glands and negativity in pancreatobiliary glands. (C) Loss of nuclear SMAD4 staining in pancreatobiliary glands, with retention in intestinal-type glands.

Conclusions

Sacrococcygeal teratomas (SCTs) should be excised completely at the time of diagnosis. Although the majority of SCTs are benign, somatic malignant transformation can occur. Delays in seeking treatment may lead to advanced-stage cancer, underscoring the importance of timely and comprehensive management.

References

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