

Diagnostic accuracy of serum alpha-fetoprotein levels in detecting recurrent sacrococcygeal teratoma: a systematic review

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Introduction

- Sacrococcygeal teratoma (SCT); most common congenital germ cell tumor.¹
- Recurrence risk 2-35%²
- Serum alpha-fetoprotein (AFP) is often used as a tumormarker to detect malignant recurrences.
- Aim: Diagnostic accuracy of serum AFP in recurrent SCT

Methods

- Systematic Review according to PRISMA guidelines
- Search:
- *Sacroccocygeal Teratoma AND Alpha-Fetoprotein And Recurrence*

Discussion

- Diagnostic sensitivity ranged from 0.50 to 0.96 depending on the subgroup of patients.
- Serum AFP levels can be difficult to interpreted since AFP is always elevated in neonates.
- Secondary rise or a delayed decline are important.³

Alpha-Fetoprotein levels are elevated in 96% of patients with **malignant recurrence of sacrococcygeal teratoma.**



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Results

Serum AFP-values	SCT		Total
	Recurrence	No recurrence	
Elevated	83	7	90
Normal	28	115	143
Total	111	122	233

Serum AFP-values	SCT		Total
	Recurrence	No recurrence	
Elevated	11	6	17
Normal	3	108	111
Not described	8	0	8
Total	22	114	136

Histology	Serum AFP-levels at time of recurrence	
	Elevated n (%)	Normal n (%)
Mature	1 (1.2)	19 (67.9)
Immature	2 (2.4)	6 (21.4)
Malignant	80 (96.4)	3 (10.7)
Total number of patients	83 (100)	28 (100)

References

- 1 Padilla BE, Vu L, Lee H, et al. Sacrococcygeal teratoma: late recurrence warrants long-term surveillance. *Pediatr Surg Int.* 2017;33(11):1189-1194.
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- 3 Guimarães-Barreto MW, Vivas Silva L, Barini R, Gonçalves Oliveira-Filho A, Sbragia Lo. ALPHA-FETOPROTEIN FOLLOWING NEONATAL RESECTION OF SACROCCOCCYGEAL TERATOMA. *Pediatric Hematology & Oncology.* 2006;23(4):287-291.