TESTICULAR CANCER

PEDIATRICS: YOLK SAC/TERATOMA
20-30: SEMINOMA
35-40: SEMINOMA
>50: 1 LYMPHOMA, 2 SPERMATOCYTIC SEMINOMA

RISK FACTORS: CRYPTORCHIDISM (x3-8), GONADAL DYSGENESIS, FAMILY HISTORY

		AFP	B-HCG	ORIGIN	OTHERS
GERM CELL 95%	**SEMINOMA 35%**				**SENSITIVE TO CHEMO-RT** **MOST FREQUENT**
	A) CLASSIC 85% B) ANAPLASTIC 10% C) SPERMATOCYTIC 5%	--- --- ---	20%Mild --- ---	SPERMATOCYTE	A) Most likely to **bone mtx** B) **Prognosis same as classic** May have mild B-HCG ↑ C) **>50 years. No MTX.**
	MIXED GERM CELL TUMOUR 40%	**SEMINOMA + NON SEMINOMA: TREATED AS NON SEMINOMA**			
	NON SEMINOMA 25% 1.EMBRYONAL CELL CARCINOMA 80%	+	+	BLASTOCEL (early embryo)	20-30 YEARS OLD MEN USUALLY MIXED AGGRESSIVE, MTX **BAD PROGNOSIS**
	2.TERATOMA 5%	+	---	EMBRYO (endoderm, ectoderm, mesoderm elements)	Bimodal: <4y/ 20-40 Mature teratoma: benign **CHEMO-RT RESISTANT**
	3.CHORIOCARCINOMA 1%	---	~100%	CHORIONIC VILLUS	Usually mixed **HEMATOGENOUS MTX** (BRAIN, LUNG) **WORST PROGNOSIS ALL TESTICULAR TUMORS, MOST LETHAL**
	4.YOLK SAC TUMOR 1%	~100%	---	EMBRIO YOLK SAC	Bimodal:1-2y (pure) 20-25y(mixed) **MOST COMMON PEDIATRIC TESTICULAR CARCINOMA**
NO GERM 5%	GONADOBLASTOMA Very rare	---	---	MIXURE GONADAL ELEMENTS	May transform malignant (seminoma) **DISORDERS SEXUAL DEVELOPMENT, DYSGENETIC GONADS (TURNER)**
	LEYDING TUMORS 3%	---	---	LEYDING (INTERSTITIAL CELLS)	1/3 Gynecomastia, precoc. puberty ↑urinary DHEA, androsterone **CHEMO/RT resistant**
	SERTOLI TUMORS <1%	---	---	SERTOLY CELLS	1/3 Gynecomastia, no virilization **CHEMO/RT resistant**
	LYMPHOMA	---	---		>50 years. Non Hodgkin only. Bilateral. Most common mtx to testis.

BIOMARKERS:

AFP: half-life **5-7 DAYS** **NEVER ELEVATED IN PURE CHORIOCARCINOMA AND PURE SEMINOMA**
Normally: <10 ng/ml **S1: <1000 S2: <10-000 S3: >10000**

B-HCG: half-life **24-36 hours** Secreted by syncytiotrophoblasts.
MAY BE ELEVATED IN EMBRYONAL, CHORIOCARCINOMA AND 20 % CLASSIC SEMINOMA
Normally: : <5 mIU/ml **S1: <5000 S2: <50-000 S3: >50000**
LDH: Enzime secrete by many tissues. Bulky disease.
S1: <1.5 ULN S2: <10 ULN S3: >10 ULN

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