

Cysts

By Vlatka Agnetta, MD

Diagnosis	Common location	Origin	Clinical	Pathology	Association
Epidermoid inclusion cyst (EIC)	Face Upper trunk Scrotum	Follicular	Central punctum	laminated keratin lined w/ stratified squamous epithelium containing granular layer	Gardner syndrome
Milia	Oral Face	Tiny EICs	Tiny white papules		Marie-Unna, Basex, Rombo, Oral-facial-digital syndrome, Rasmussen, Gardner's
Pilar/Trichilemmal cyst	Scalp	Outer root sheath	Firm mobile nodule	dense compact eosinophilic homogenized keratin, lined with squamous epithelium, abrupt keratinization with NO granular layer	
Proliferating pilar cyst	Scalp	Outer root sheath with malignant transformation	Large scalp nodule	"rolls & scrolls"	
Vellus hair cyst	Upper trunk		Eruptive small papules	Wall resembles epidermoid cyst (granular layer) with small vellus hairs within the cyst with lamellated keratin	Renal failure Ectodermal Dysplasia Pachonychia Congenita
Steatocystoma Multiplex	Chest Axilla Groin	AD inheritance: Defect: Keratin 17 gene	Resembles nodulocystic acne, flares in puberty with oily drainage	Sebaceous glands in cyst wall Pink, ragged shark tooth cuticle Sebaceous glands in cyst wall	PC Type II
Dermoid cyst	Periorbital/ eyebrow	Embryonic plate fusion pathway	Suncutaneous nodule	Resembles epidermoid cyst (has granular layer) & with adnexal structures w/in cyst wall	If midline needs imaging
Preauricular cyst/sinus	Preauricular (R>L)	Defective fusion of 1 st & 2 nd branchial arches w/ epithelial entrapment	Preauricular indentation/pit sometimes with underlying nodule and infection	IF more than 1 pit, needs audio exam and renal imaging	Goldenhar syndrome Branchio-oto-renal dysplasia
Bronchogenic cyst	Suprasternal notch		subcutaneous nodule present at birth	Respiratory epithelium	
Branchial cleft cyst	Lateral neck	2 nd branchial cleft defect	Subcutaneous nodule	Lymphoid follicles	



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Thyroglossal duct cyst	Anterior neck		MIDLINE cystic nodule ANT NECK***MOVES w/ swallowing	Thyroid follicles	
Hidrocystoma	Periorbital	Ecrrine or apocrine	Bluish or translucent papule seen on cheeks/eyelids	Two layers of cell lining (thin cuboidal or columnar epi)	Schöpf-Schulz-Passarge syndrome
Cutaneous ciliated cyst	Legs in females	Mullerian duct remnant	Drains clear fluid	Ciliated cuboidal/columnar epithelia w papillary projections into cyst lumen	
Ciliated cyst of the vulva	Vulvar	Mullerian duct remnant			
Median raphe cyst	Midline along anogenital raphe	Aberrant urethral tissue		Stratified columnar epithelium	
Omphalomesenteric duct cyst	Umbilicus	Fetal connection between midgut and yolk sac	Fecal matter drainage from the umbilicus	Ectopic GI tissue	
Urachal cyst	Umbilicus		Urine drainage from the umbilicus	Urothelium	
Mucocele	Mucosa			Salivary glands	
Ganglion/synovial cyst	Wrist, digits		Attached to the tendon sheath but NOT the joint	Mucin within the sac	
Digital mucous cyst	Distal finger		Clear cystic mass with depressed nail deformity and gelatinous drainage		
Auricular pseudo-cyst	Auricle	Trauma related		Intracartilaginous cystic space w degenerated cartilage & amorphous eosinophilic material, cyst WITHOUT epithelial lining	
Pilonidal cyst	Upper gluteal cleft, sacrococcygeal area	Entrapped hair	Part of follicular occlusion tetrad		

References:

1. Bologna JL, Jorizzo JL, Schaffer JV, editors. Bologna Textbook of Dermatology. 3rd ed. Spain: Mosby Elsevier publishing; 2012: chapters 20-21.