QUIZ 2

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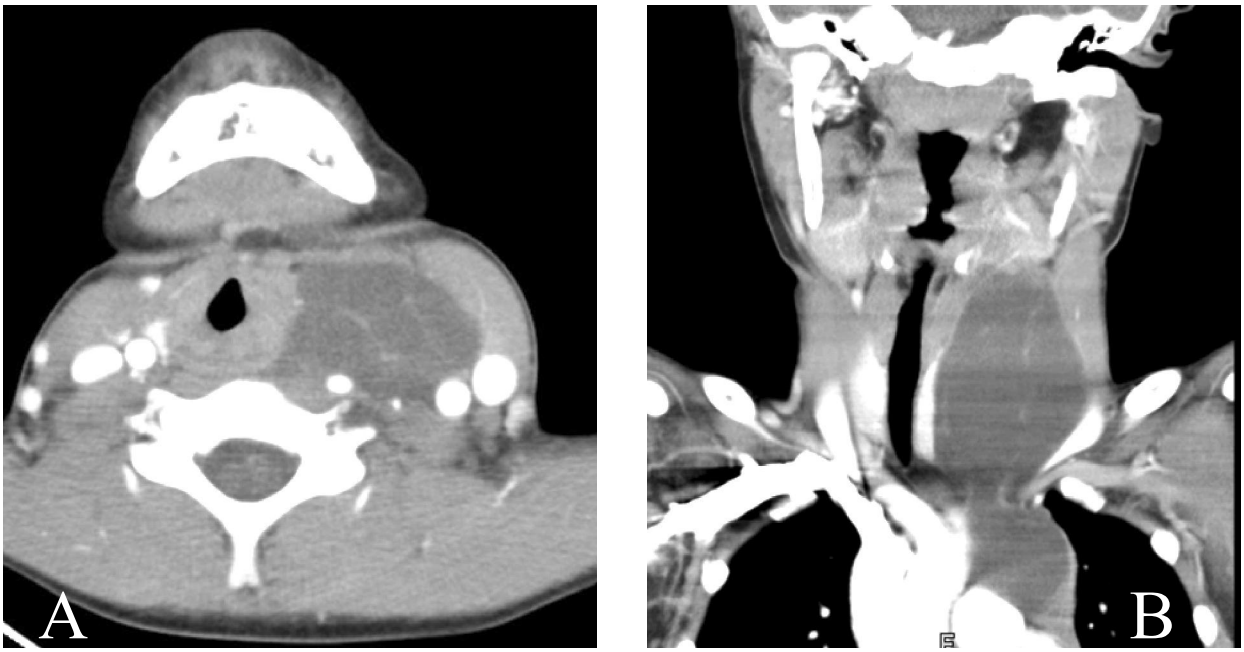


Questions

Q1. What is the differential diagnosis on CT scan?

Q2. What is the most likely diagnosis and why?

Q3. What will you seen on ultrasound and how will the fluid appear on aspiration?

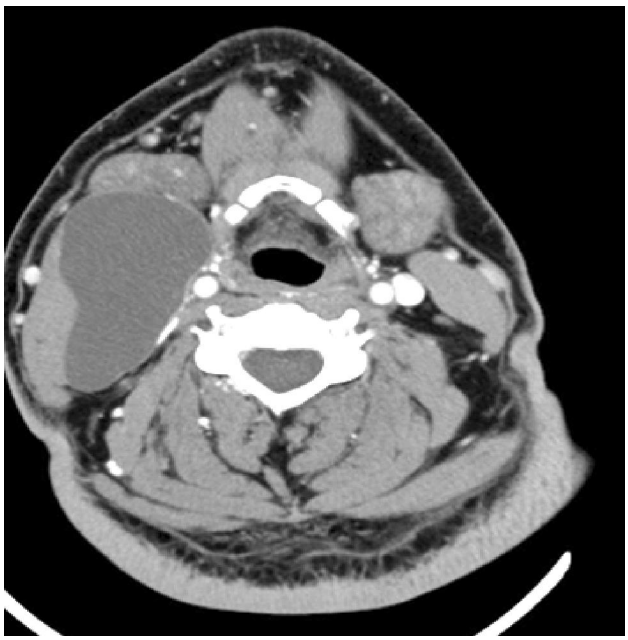
Q4. What are associations of this disease?

QUIZ 2

Answers

Answer 1:
Branchial cleft cysts (mainly second branchial cleft)
Cystic hygroma (Type of lymphangioma)
Thyroglossal Duct Cyst
Dermoid and Epidermoid cysts
Cervical thymic cysts
Cervical Bronchogenic Cyst
Laryngoceles

Answer 2: Neck Cystic hygroma (Lymphangioma) extending into the mediastinum
Compare with image below which shows a type 2 Branchial cleft cyst which does not show septations, Has a better defined wall, present in typical location and not infiltrating to other areas.



Answer 3: On ultrasound examination cystic hygromas appear as multilocular predominantly cystic mass with septa of variable thickness. Fluid-fluid levels can be observed with a characteristic echogenic, hemorrhagic component layering in the dependent portion of the lesion.
The fluid on aspiration mostly appears watery clear. It can also be milky in appearance and sometimes blood tinged.

Answer 4: Most common associations of Cytsic hygroma are Turner syndrome (most frequent association), Down syndrome (second most frequent association), trisomy 13, and trisomy18. Less commonly are congenital cardiac anomalies such as aortic coarctation (most common cardiovascular anomaly), hypoplastic left heart syndrome, Noonan syndrome, pentalogy of Cantrell, Apert syndrome and fetal alcohol syndrome.

Discussion

Cystic Hygroma: It is the most common form of lymphangioma. It is predominanately presents in pediatric age group. They develop from early embryonic lymphatic channels and which accounts for the propensity of these lesions to occur in the lower neck, axilla, and upper mediastinum. Approximately 75% of all cystic hygromas involve the neck and the lower portion of the face. In children, the most common location is the posterior cervical space. These lesions are characteristically infiltrative in nature and do not respect fascial planes. Consequently, they may extend inferiorly from the posterior cervical triangle into the axilla and mediastinum or anteriorly into the floor of the mouth. They are usually asymptomatic and appear as painless, soft mass. However, larger masses can become symptomatic mainly due to extrinsic pressure especially on airway causing difficulty in breathing.
On ultrasound examination cystic hygromas appear as multilocular predominantly cystic mass with septa of variable thickness. Fluid-fluid levels can be observed with a characteristic echogenic, hemorrhagic component layering in the dependent portion of the lesion. On CT images, cystic hygromas tend to appear as poorly circumscribed, multiloculated, hypoattenuated masses. They typically have characteristic homogeneous fluid attenuation, unless infected. It is not uncommon for some of these lesions to extend from one space in the neck into another as a result of their infiltrative nature. Relationship of a cystic hygroma to adjacent soft tissues of the neck is best demonstrated with MR imaging. The most common pattern is that of a mass with low or intermediate signal intensity on T1-weighted images and hyperintensity on T2-weighted images.

References

1. Donnelly LF, Adams DM, Bisset GS. Vascular malformations and hemangiomas: a practical approach in a multidisciplinary clinic. AJR Am J Roentgenol. Mar 2000;**174(3):** 597-608.

2. Koeller KK, Alamo L, Adair CF, Smirniotopoulos JG. Congenital cystic masses of the neck: radiologic-pathologic correlation. Radiographics. Jan-Feb 1999; **19(1):** 121-46;