


RADIOLOGIC FINDINGS IN TURNER SYNDROM





Prenatal findings:

- **Cystic hygroma**
- **Increased NT**
- **Hydrops fetalis**
- **Cardiovascular anomalies**
- **Urinary system anomalies**
- **Limb shortening**
- **Mild IUGR**



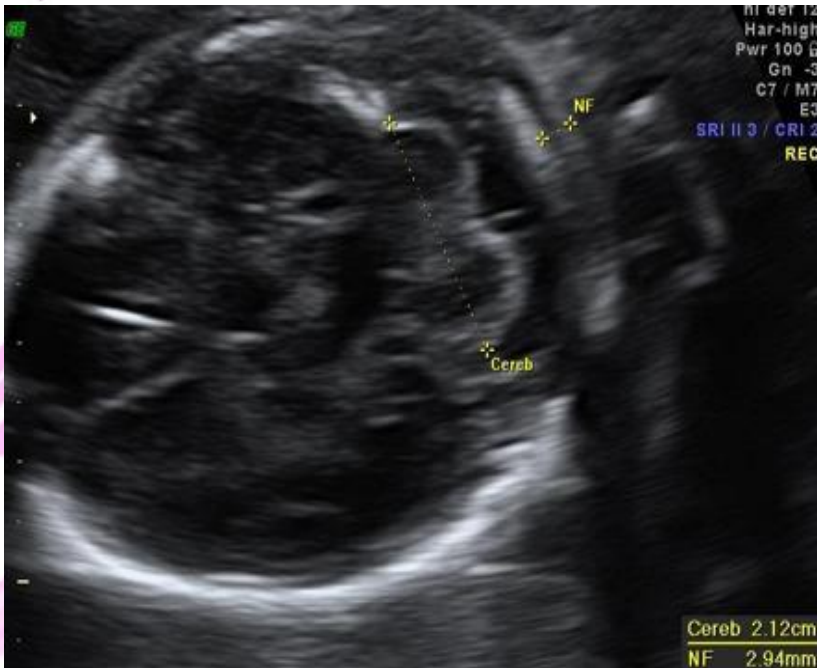
NORMAL NT



Increased NT



NUCHAL THICKNESS



Cystic hygroma

- **Chromosomal abnormality**

Ts (septate)

Trisomy 21 & 13 & 18

- **Non chromosomal**

Cystic hygroma





Hydropse fetalis

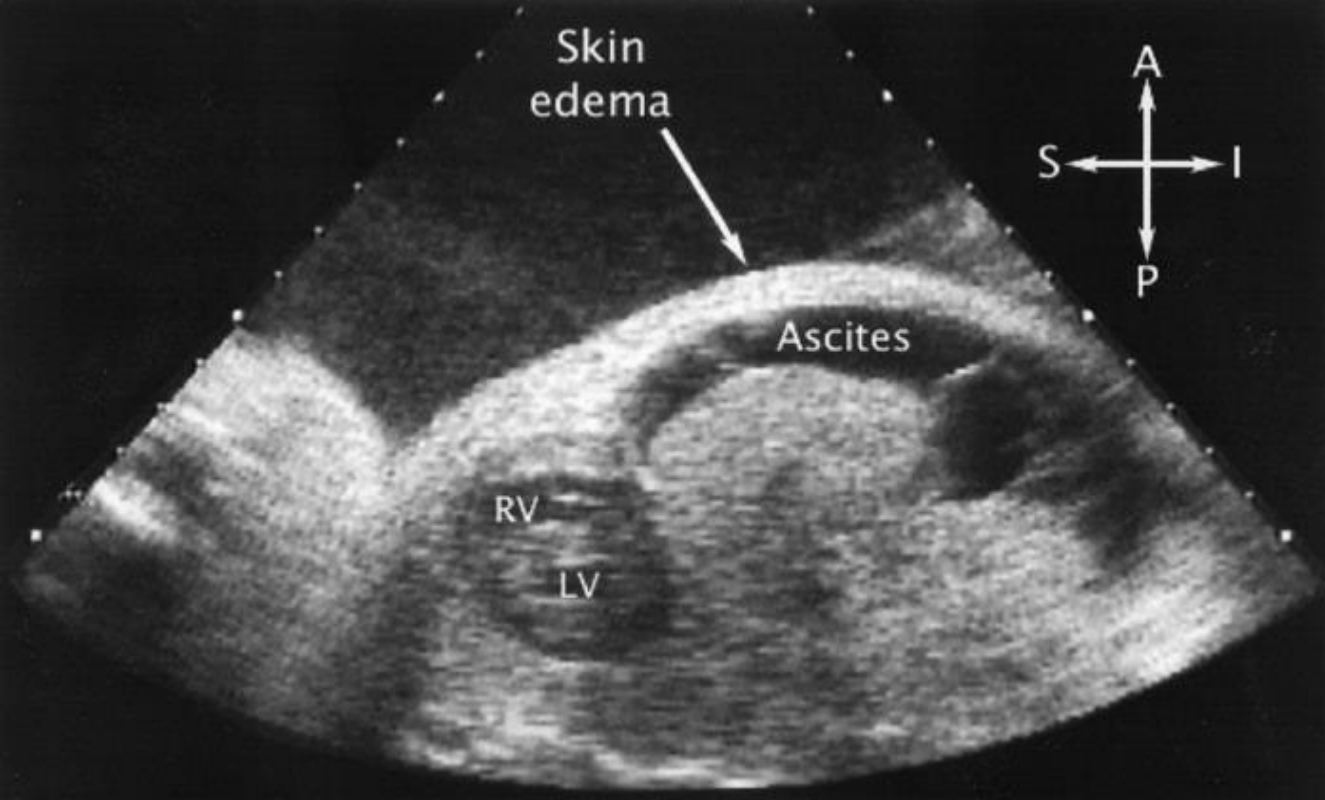
Radiologic Features

Hydrops fetalis

- Excessive accumulation of fluid in fetal subcutaneous tissue or at least **two** fetal serous cavities
 - Fetal pleural effusion
 - Fetal pericardial effusion
 - Fetal ascites
 - Placental enlargement
 - Polyhydramnios
 - Hepatomegaly
 - Fetal anasarca



<https://radiopaedia.org/articles/hydrops-fetalis>
<http://www.fetalultrasound.com/online/text/36-029.htm>







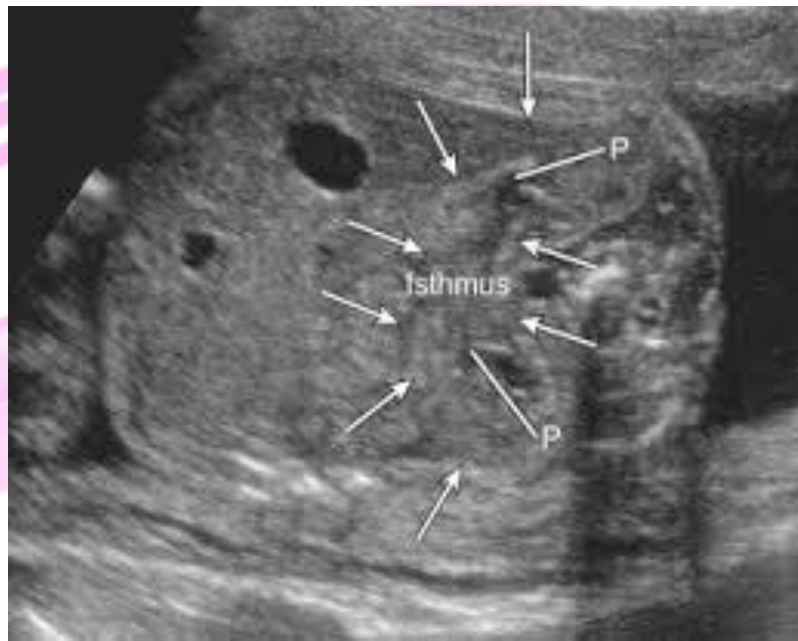
Cardiovascular anomalies

- **Bicuspid aortic valve**
- **Coarctation of aorta**





Horse shoe kidney





Post partum and adult hood findings

- **Hand**

positive metacarpal sign

Cubitus valgus

- **knee**

Abnormal medial femoral
& tibial chondyle

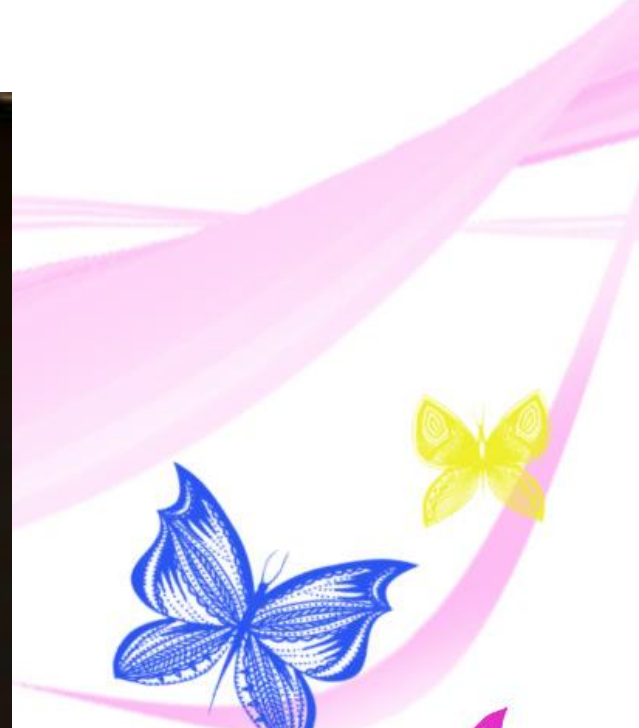


Radiologic Features

Positive metacarpal sign

- A line drawn along the heads of the 4th and 5th metacarpals will intersect the head of the 3rd metacarpal



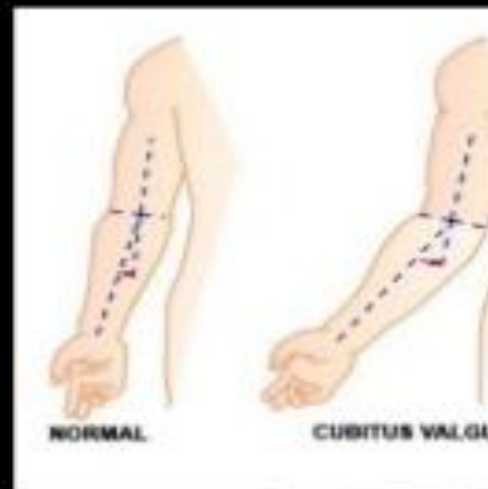


Radiologic Features

Cubitus valgus

Increased carrying angle of the elbow/
cubitus valgus

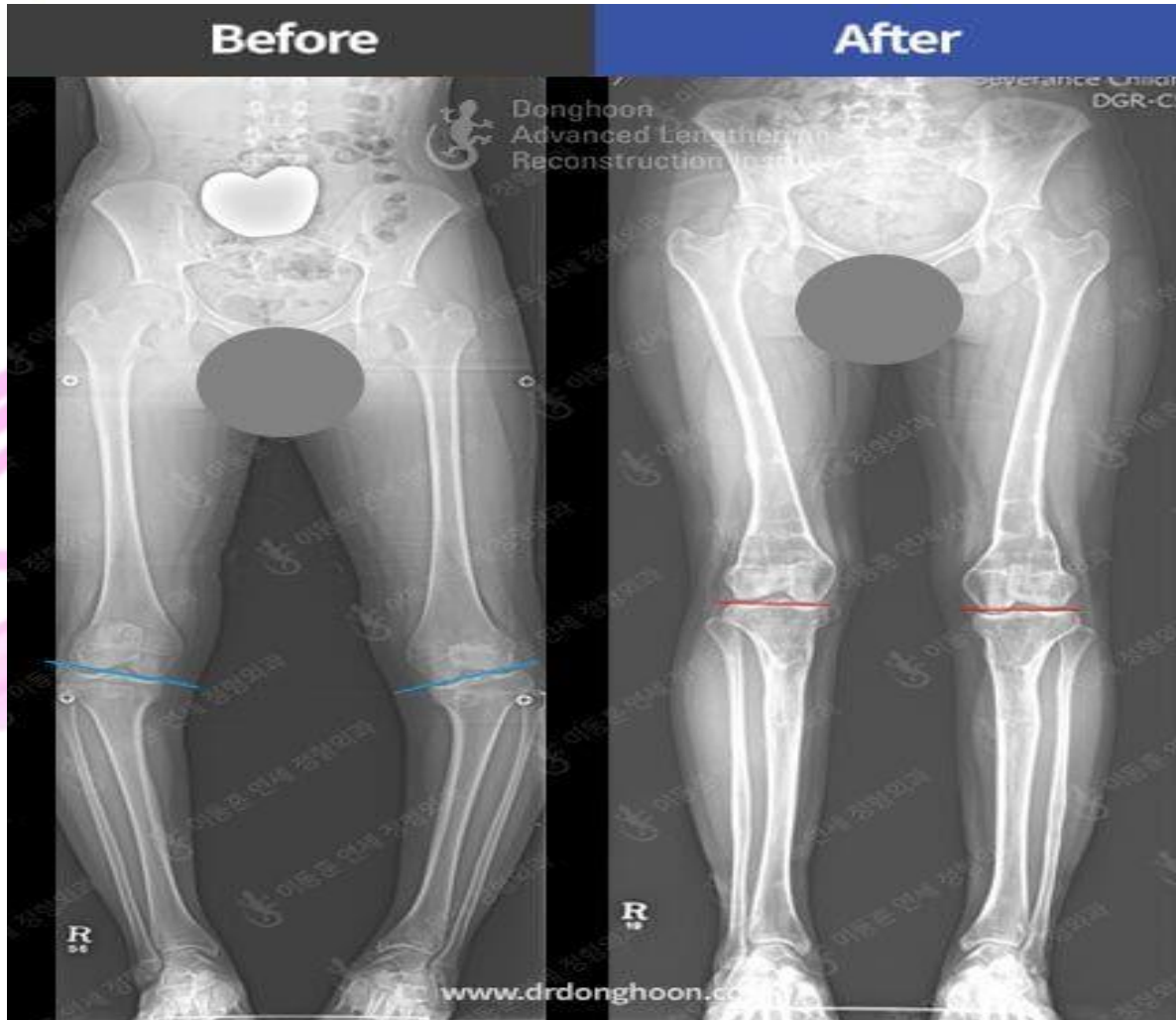
- Carrying angle (cubital angle) → formed between the humerus and the forearm axes
- Normal : 5-15° away from the body or 165-175° towards it
 - < 5° : Cubitus varus
 - > 15°: Cubitus valgus



<https://radiopaedia.org/articles/carrying-angle>

<https://forum.bodybuilding.com/showthread.php?t=167265691>

Knee deformity

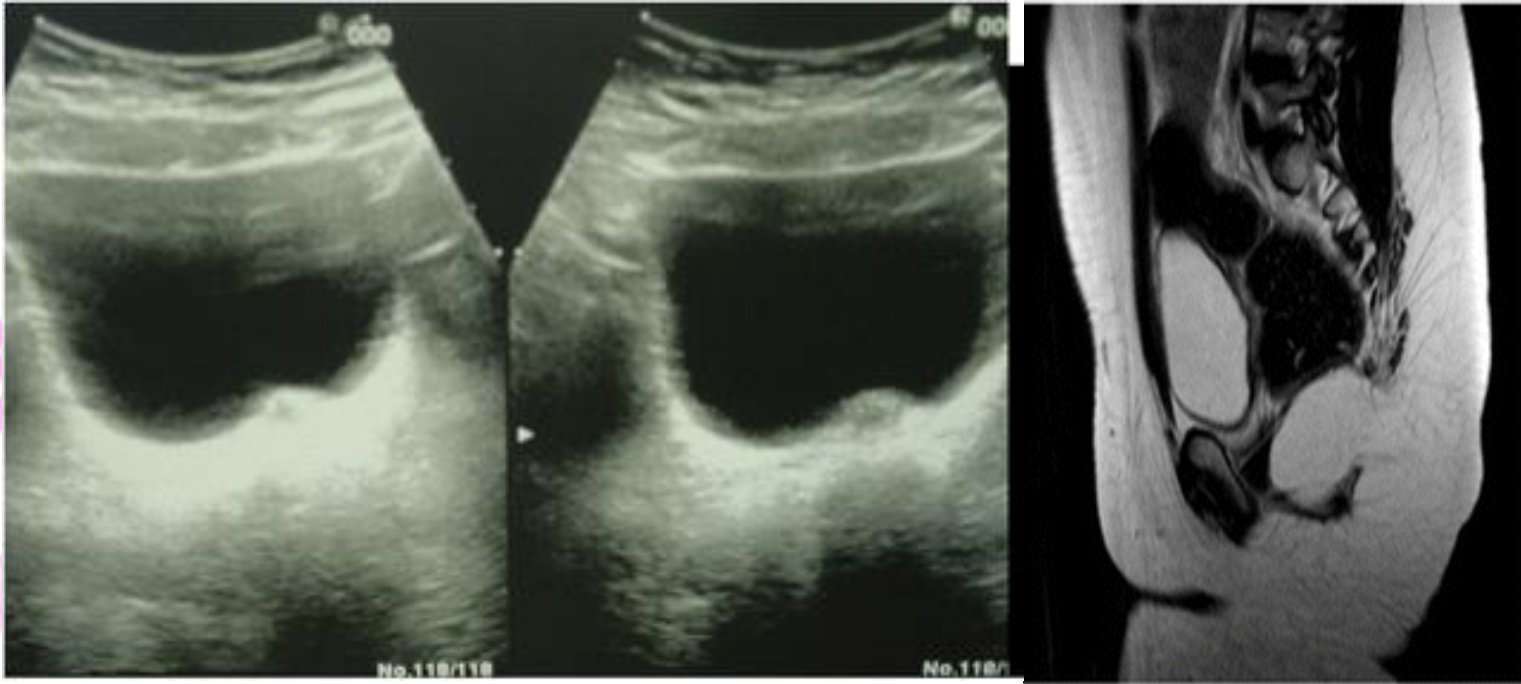




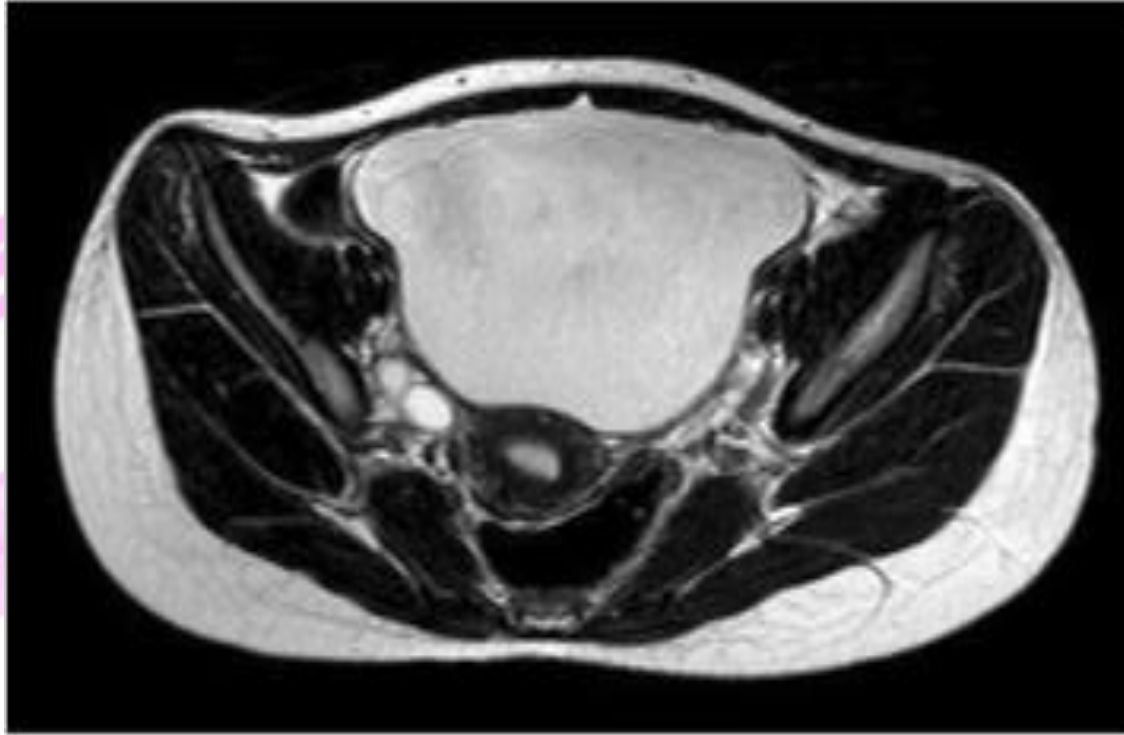
**Sonography
and MRI
evaluation of
uterus and
ovaries**



US & MRI in turner



MRI IN SPONTANEOUS PUBERTY





Thank you