The Radiological Findings of U/s and CT Scan in Hydrocephalus of patients whose ages below 1.5 year in Al shaab Teaching Hospital (Selected Cases):

Case (1): Conclusion of U/s:-
- Communicated Hydrocephalus
- Dilated lateral ventricles, 3rd and 4th
- The cause is Congenital

Conclusion of CT:
- Communicated Hydrocephalus
- Dilated lateral ventricles, 3rd and 4th
• The cause is Congenital

Case(2): Conclusion of U/s:-
• Obstructive Hydrocephalus.
• Cause: Congenital.
• Level: sylvian duct.
• 4th ventricle not seen.

Conclusion of CT scan :-
• Obstructive Hydrocephalus.
• Cause: Congenital.
• Level: sylvian duct.
• 4th ventricle is normal.
Case(3): Conclusion of U/s :-

- Communicated Hydrocephalus
- Dilated lateral ventricles, 3rd and 4th
- The cause is Congenital

Conclusion of CT:

- Communicated Hydrocephalus
- Dilated lateral ventricles, 3rd and 4th
- The cause is Congenital
Case(4): Conclusion of U/s:-

- Obstructive hydrocephalus.
- Marked dilatation of lateral ventricles.
- Normal 4th ventricle.
- Level of obstruction: Foramen of Monro.
- The cause is post meningitis.

Conclusion of CT scan:-

- Obstructive hydrocephalus.
- Marked dilatation of lateral ventricles.
- Normal 4th ventricle.
- Level of obstruction: Foramen of Monro.
  The cause is post meningitis
Case(5): Conclusion of U/s:-
- Obstructive hydrocephalus.
- Marked dilatation of lateral ventricles.
- Normal 4th ventricle.
- Level of obstruction: Foramen of Monro.
- The cause is post meningitis.

Conclusion of CT scan:-
- Obstructive hydrocephalus.
- Marked dilatation of lateral ventricles.
- Normal 4th ventricle.
- Level of obstruction: Foramen of Monro.
- The cause is post meningitis.
Case (6): Conclusion of U/s:-
- Communicating Hydrocephalus
- Grossly dilated both lateral, 3rd and 4th ventricles.
- Cause is congenital.

Conclusion of CT scan:-
- Communicating Hydrocephalus
• Grossly dilated both lateral, 3rd and 4th ventricles.
• Cause is congenital.
• Brain atrophy

Case (7): Conclusion of CT:
• Obstructive hydrocephalus
• Dilatation of lateral and third ventricles.
• No visible peripheral sulci.
Case (8): Conclusion of CT:
  • Dilatation of lateral ventricles with central atrophy.
Case (9): Conclusion of CT:
- Obstructive hydrocephalus
- Dilatation of lateral and third ventricles.
- Stenosis of cerebral aqueduct.
Case (10): CT images show ependymal nodules with the posterior fossa ependymoblastoma and hydrocephalus
Figure (E) Shows the U/S machine
Figure (D) Shows the CT scan machine
Sudan University for Science and Technology
College of Post -graduated studies
The observational check list

Date:/   /

Hydrocephalus and the application of the imaging modalities

Supervisor: Dr. Mohammed Noh

Candidate: Moawia Bushra

General In formations :

Date: ……………………………………………………………………….
Name:…………………………………………………………………….
Age:……………………………………………………………………….
Sex:……………………………………………………………………….
Residence:…………………………………………………………………….
Tribe:……………………………………………………………………….

The radiological investigations done :

1- Ultrasound investigation: a\ yes ( )    b\ No( )
2- CT Scanning: a\ yes ( )    b\ No( )
3- MRI :a\yes( )    b\ No( )

The radiological findings :

4- Ultrasound shows :……………………………………………………....
   ……………………………………………………………………….
5-C.T scanning shows :……………………………………………………..
   ……………………………………………………………………….

The surgical findings :……………………………………………………..
   ……………………………………………………………………….

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Questionnaire

Date: / / 

Hydrocephalus and Application of the Imaging Modalities

Supervisor: Dr. Mohammed Noh.
Candidate: Moawia Bushra.

1) The ultrasound is required in diagnosis of hydrocephalus! Because of:
1) Contrast: 1. High (   ) 2. Low (   ) 3. None (   )
2) Resolution: 1. High(   ) 2. Low (   ) 3. None (   )
3) Soft tissue discrimination: 1. Clear (   ) 2. Not clear (   )
4) Cost: 1. Cheep (   ) 2. expensive (   )

2) C.T scanning is important in demonstrating hydrocephalus because of the following:
5) Contrast: 1. High (   ) 2. Low (   ) 3. None (   )
6) Resolution: 1. High (   ) 2. Low (   ) 3. None (   )
7) Soft tissue discrimination: 1. Clear (   ) 2. Not clear (   )
8) Cost: 1. Cheep (   ) 2. expensive (   )

3) The criteria of MRI in diagnosis hydrocephalus are:
9) Contrast: 1. High (   ) 2. Low (   ) 3. None (   )
10) Resolution: 1. High (   ) 2. Low (   ) 3. None (   )
12) Cost: 1. Cheep (   ) 2. expensive (   )
Sudan University for Science and Technology  
College of post-graduate studies  

Questionnaire  
رقم الاستبيان (2)  

Date: / /  

Hydrocephalus and Application of the Imaging Modalities  

Supervisor: Dr. Mohammed Noh M. Ahmed  
Candidate: Moawia Bushra M. Gamaraddin Radiology.  

هذا الاستبيان صمم بغرض الحصول على درجة الماجستير في تكنولوجيا الأشعة التشخيصية.  

1) Why do you require ultrasound to demonstrate hydrocephalus (Neonatal)? Because of the following criteria:  

1. Availability: 1. Yes ( ) 2. No ( )  
2. Cost: 1. Cheep ( ) 2. Expensive ( )  
3. Time: 1. Take less time ( ) 2. Take much time ( )  
5. Soft tissue appearance (showing the brain tissue and ventricular system):  
1. Yes ( ) 2. No ( )  

2) Why do you need C.T scanning in diagnosis hydrocephalus?  

6 Availability: 1. Yes ( ) 2. No ( )  
7. Cost: 1. Cheep ( ) 2. Expensive ( )  
8.Time: 1. Take less time ( ) 2. Take much time ( )  
10 Soft tissue appearance (showing the brain tissue and ventricular system):  
1. Yes ( ) 2. No ( )  

3) Choose from the following criteria that let you select MRI?  

11 Availability: 1. Yes ( ) 2. No ( )  
12 Cost: 1. Cheep ( ) 2. Expensive ( )  
13 Time: 1. Take less time ( ) 2. Take much time ( )  
14 Hazard: 1. Hazardous ( ) 2. Not Hazardous ( )  
15 Soft tissue appearance (showing the brain tissue and ventricular system):  
1. Yes ( ) 2. No ( )