



بسم الله الرحمن الرحيم



Sudan University of Science and Technology

Colleague of Graduate Studies

**Cranial Ultrasound finding in hydrocephalus Sudanese neonates
and infants**

**نتائج فحص الجمجمة بالموجات فوق الصوتية لحالات إستسقاء
الدماغ عند الأطفال والرضع السودانيين**

**A thesis Submitted In Partial Fulfillment Of The Requirement Of M.Sc. In
Diagnostic Medical Ultrasound Imaging**

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2011-2012

Chapter one

Chapter two

Chapter three

Chapter four

Chapter five

Appendices

References

Annexes

Appendix No. 1: The data collection sheet :

Sudan University of science and technology

College of graduate studies

Ultrasound finding of hydrocephalus in Sudanese neonate and infant

DATE.....

NO.....

Patient Data:

age

Sex.....

Neonatal condition:

Symptomatic ()

Asymptomatic ()

Delivery mode:

CS ()

spontaneous delivery ()

Ultrasound finding :

Lateral ()

3rd ()

4th ()

Type of Hydrocephalus :

Congenital ()

Acquired ()

Description of hydrocephalus :

Communicating ()

non communicating ()

Associated finding :

Prematurity (post-hemorrhagic) ()

Myelocele ()

Post meningitis ()

Dandy walker malformation ()

Archnoid cyst ()

Interhemispheric cyst ()

Aqueduct stenosis ()

Arnold chairrii malformation ()

Brain tumor ()

Subarchnoid heamorrhage ()

Myelomeningiocele association :

Yes ()

no ()

Other

.....

Appendix No. 2: Data collection table :

	Age	Gender	Conditions	Delivery	Lateral	Third	Fourth	Type	Description	Findings	Myelomeningocele
1	1	2	1	2	1	1	2	2	1	3	2
2	2	1	1	1	1	1	1	2	1	3	2
3	1	2	1	1	1	1	2	1	2	1	2
4	1	2	1	1	1	1	2	1	2	5	1
5	1	1	1	2	1	1	2	1	2	1	2
6	2	2	2	2	1	1	2	1	1	4	1
7	1	1	1	2	1	1	1	2	1	3	2
8	2	1	1	1	1	1	2	1	2	1	2
9	2	1	1	1	1	1	1	2	1	3	1
10	2	2	1	1	1	1	1	1	1	4	2
11	2	1	1	1	1	1	1	1	2	2	2
12	2	1	2	2	1	1	1	2	1	3	2
13	2	2	2	2	1	1	1	2	1	3	2
14	2	2	1	1	1	1	1	1	2	1	2
15	1	2	1	1	1	1	1	1	2	1	1
16	2	2	1	2	1	1	1	1	2	2	2
17	2	1	1	1	1	2	2	1	1	1	1
18	1	2	1	1	1	2	2	1	2	2	2
19	1	1	1	2	1	1	2	1	1	4	2
20	2	2	1	1	2	1	1	2	1	4	1
21	2	2	1	1	1	1	1	2	1	3	1
22	1	1	2	2	1	2	2	1	2	1	1
23	2	2	2	1	1	2	2	1	1	4	2
24	2	2	2	1	1	1	1	1	1	4	1
25	2	2	1	2	1	1	1	2	1	3	2
26	1	2	1	2	1	1	2	2	1	3	2
27	2	2	1	1	1	1	1	2	1	3	2
28	1	2	1	1	1	1	2	1	2	1	2
29	1	2	1	1	1	1	2	1	2	5	1
30	1	1	1	2	1	1	2	1	2	1	2
31	2	2	2	2	1	1	2	1	1	4	1
32	1	1	1	2	1	1	1	2	1	3	2
33	2	1	1	1	1	1	2	1	2	1	2
34	2	1	1	1	1	1	1	2	1	2	1

Keys :

age : 1= Less 1 Month , 2=More than Month

Gender : 1=male , 2=female

Conditions: 1=symptomatic, 2=Asymptomatic

Delivery: 1= CS , 2= Spontaneous

Lateral: 1=yes , 2=no

Third : 1=yes , 2=no

Fourth : 1=yes , 2=no

Type: 1=congenital , 2=acquired

Description : 1=communicating , 2=non communicating

Findings : 1= Aqueduct stenosis , 2= Dandy walker malformation , 3=post meningitis , 4= Aronlad chirri II malformation , 5= Archanoid cyst

Myelomeningocele: 1=yes , 2=no

Appendix no .3 Images

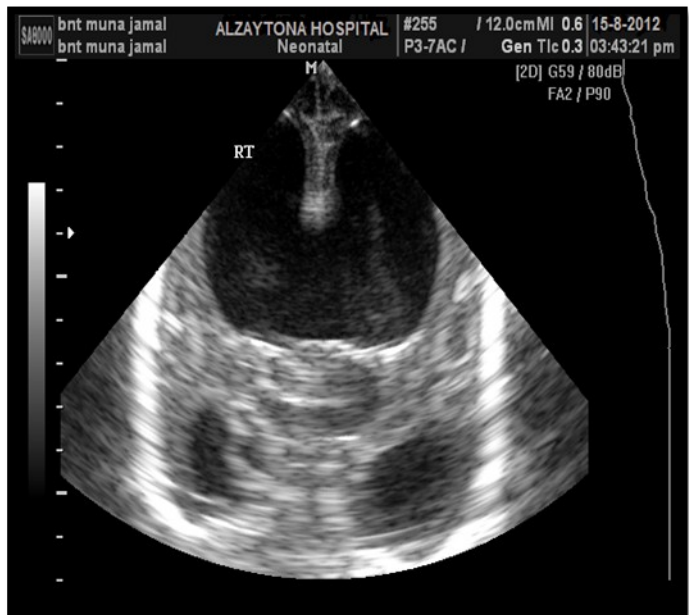


Image no (1) : Axial view show dilated lateral ventricles



Image no (2) :Axial view show dilated lateral ventricles



Image no (3) : axial and Sagittal view show dilated ventricles

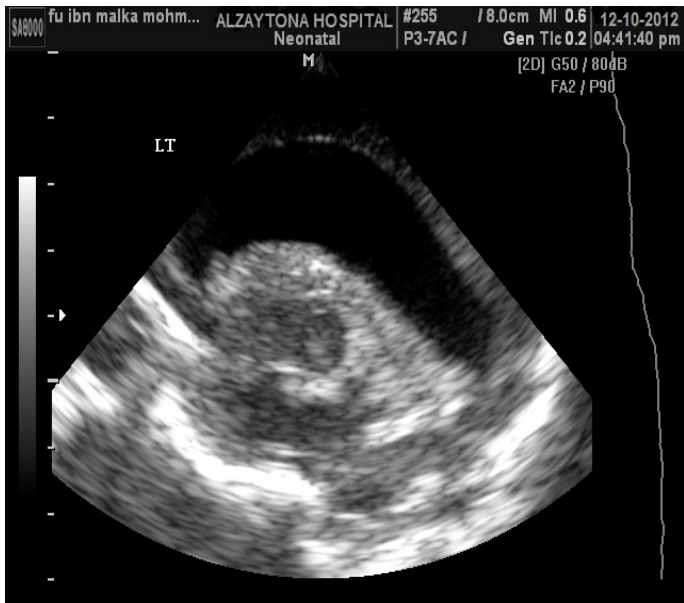


Image no (4): Sagittal view show dilated ventricles