



Orofacial function of persons having Hydrocephaly

Report from observation charts

The survey comprises 34 observation charts.

Estimated occurrence: 1/1000 live births, of which 1/3 with meningomyelocele.

Etiology: A blockage in the cerebrospinal fluid system of the brain produces elevated pressure and enlarged ventricular cavities, which in turn cause the head to grow disproportionately large. Hydrocephalus in preterm births is most often caused by bleeding in the cavities of the brain. Hydrocephalus in fullterm births may be caused by events during pregnancy or in connection with delivery, after birth or occur for unknown reasons.

General symptoms: Hydrocephalus is usually treated with the surgical placement of a shunt (flexible tube) that diverts cerebrospinal fluid from the ventricles to the abdominal cavity or to the atrium of the heart. Hydrocephalus does not necessarily cause any functional impairment but may be associated with cerebral palsy, balance problems, delayed development, learning disabilities, epilepsy, or eye and vision problems. Autism spectrum disorders, e.g. ADHD, may also occur.

Orofacial/odontological symptoms: Oral motor function is affected in some children, resulting in speech impairment, eating difficulties and drooling. Weak muscles in the mouth and face may also impact on oral health and occlusal development.

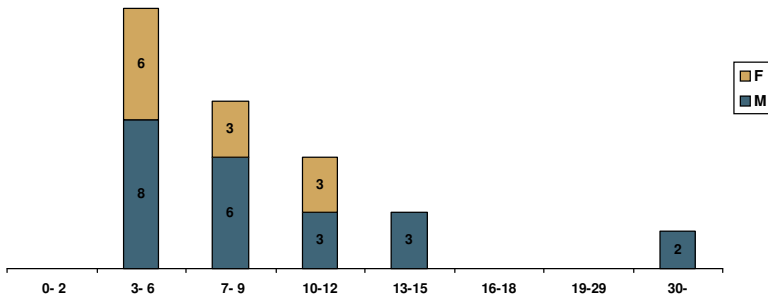
Orofacial/odontological treatment:

- Antibiotic treatment may be required with certain types of shunts in connection with tooth extraction or other oral interventions associated with bleeding.
- Training in oral motor skills in cases of eating difficulties, speech difficulties and drooling.
- Speech and language difficulties should be treated by a speech-language pathologist.
- An orthodontist should be consulted when the child is between the ages of 7 and 9 in order to determine whether there are any dental or bite anomalies and whether corrective treatment is necessary
- Problems in managing oral hygiene and tooth brushing, and eating difficulties justify extra preventive dental care

Sources

The rare disease database of the Swedish National Board of Health and Welfare.
MHC-basen – Mun-H-Center's database of orofacial manifestations in rare disorders.
Ågrenska's Newsletter (Swedish)

Age distribution

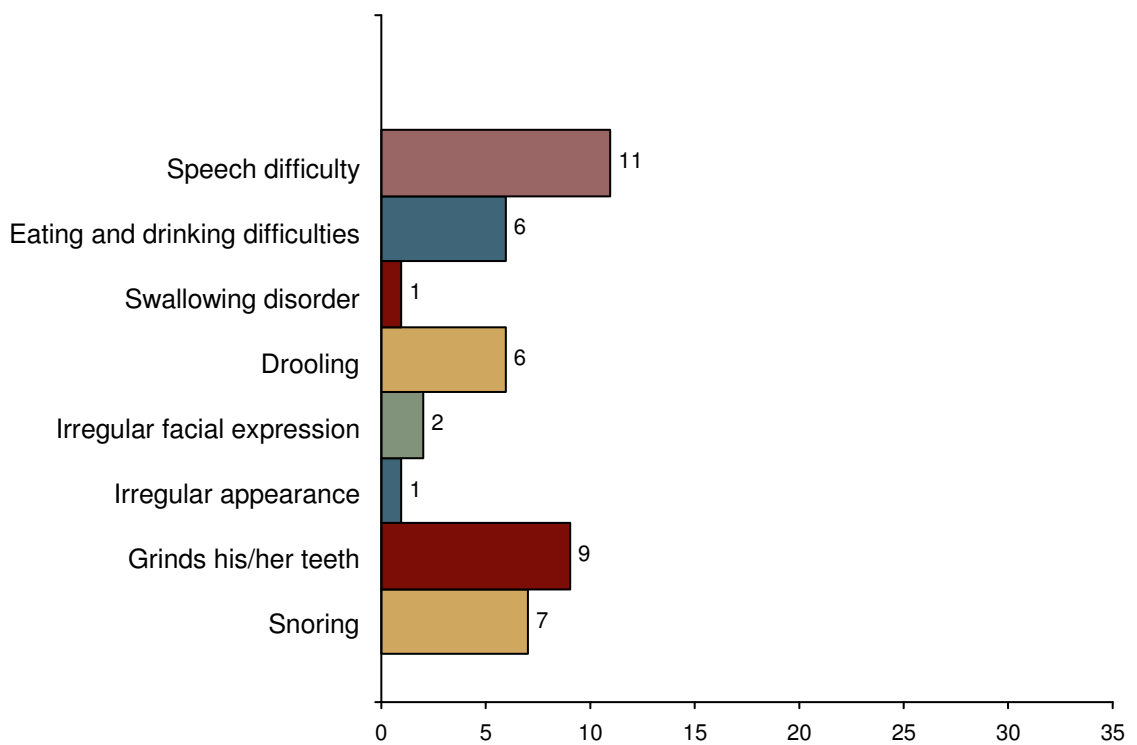


Number: 33

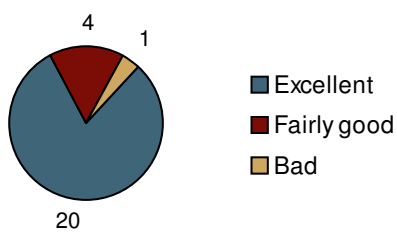
Ages: 3 -- 43 years

Sex: M (21) + F (12)

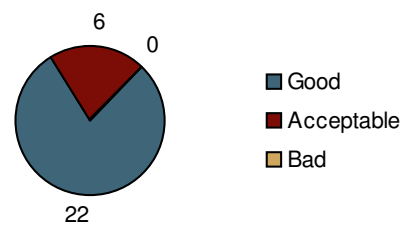
Orofacial problems



Oral health

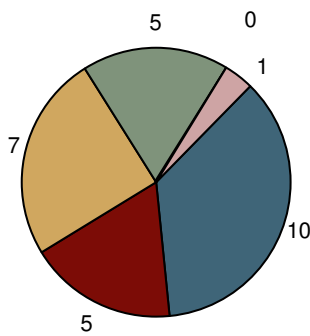


Oral hygiene



Behaviour in the treatment situation

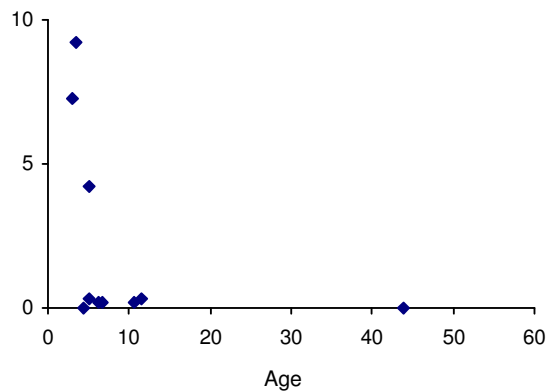
How calm and co-operative is the patient at time of examination?



- (10) ■ Examination is possible without problem
- (5) ■ Examination is possible without problems, some reaction is observed
- (7) ■ Examination can continue if adjusted to patient's reactions
- (5) ■ Reactions are considerable and examination is obviously affected
- (0) ■ Examination is practically impossible to complete
- (1) ■ Patient refuses examination

How does the patient cope with treatment in general?

0=no problems/10=great problems

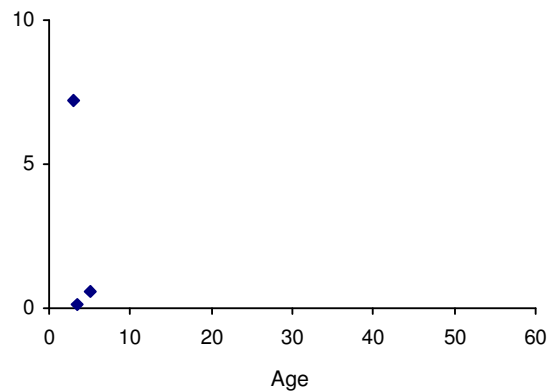
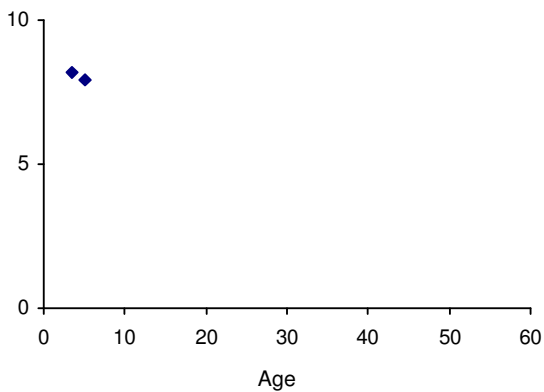


If there are treatment problems:

To what degree are the problems, if any, due to NN's handicap? To what degree are the problems, if any, due to NN's fear?

0=not at all/10=to a very high degree

0=not at all/10=to a very high degree



Clinical findings	Total N=33	Boys/Men N=21	Girls/Women N=12	Not evaluated
Speech difficulty	11	8	3	4
Open mouth at rest	9	7	2	3
Drooling	7	5	2	4
Over crowding	7	2	5	5
Hypomineralisation	6	4	2	5
Mask-like expression	6	4	2	3
Post normal bite	6	4	2	6
Reduced mobility in tongue	6	4	2	4
Cranio-facial abnormality	5	1	4	3
Low muscle tone in lower lip	5	4	1	3
Low muscle tone in upper lip	5	4	1	3
Reduced stability in neck	5	3	2	3
Facial asymmetry	4	3	1	3
Gingivitis	4	4	0	4
Reduced mobility in neck	4	2	2	4
Concave facial profile	3	3	0	3
Deep bite with gingival contact	3	2	1	6
Edge to edge bite	3	2	1	6
Horizontal over-bite 6 mm or more	3	2	1	6
Low muscle tone in tongue	3	3	0	4
Mucous membrane change	3	1	2	4
Other oral habits	3	1	2	4
Pre normal bite	3	2	1	6
Upper lip is inactive and raised	3	3	0	3
Abrasion - insignificant	2	2	0	5
Frontal inversion	2	1	1	6
Frontal open bite	2	0	2	6
Grinds his/her teeth	2	1	1	5
Low muscle tone in masticatory muscles	2	2	0	6
Lower lip is flaccid and inactive	2	2	0	3
Mouth breathing	2	2	0	8
Narrow palate	2	0	2	6
Reduced mobility in soft palate	2	1	1	15
Retroclined lower incisors	2	1	1	5
Spacing	2	1	1	5
Supernumeraries	2	2	0	13
Supra-gingival calculus	2	2	0	4
Tongue between front teeth	2	2	0	4
Tongue between front teeth when swallowing	2	1	1	4