were normal. Abdominal ultrasound unremarkable. Heart ultra-
sound: unremarkable. Neurological examination, muscle strength
and reflexes are normal. EMG: no myopathic changes. ENG: normal.
Rtg of lower extremities found calcifications of soft tissues. Bones
with no destruction or osteolyses. Biopsy: on subcutan adipose tissue
are found multiple and confluent foci of calcification called Calcino-
sis. She is without treatment to now and exacerbation of changes
has been detected.

Conclusion Since there were no systemic metabolic disorders, tis-
ue injury, or other found reason, and the diagnose of Calcinosi-
cuts idiopathica was made.

Acknowledgements to nurses of nephrology department.

630 NEUROPSYCHOLOGICAL OUTCOME IN CONGENITAL
HYPOTHYROIDISM IN AN ITALIAN COHORT: THE
DEVELOPMENTAL QUESTIONNAIRE FOR CH (DQCH)
doi:10.1136/archdischild-2012-302724.0630
1'S Bargagna, 'A' Olivieri, 'C' Fazzini, 'M' Bozza. 'Stella Maris Scientific Institute, Pisa;
'1Istituto Superiore Sanità, Rome, Italy

Background and Aims Several studies on neuropsychological
outcome in early treated children with congenital hypothyroidism
(CH). have demonstrated the presence of developmental disorders,
in particular motor abilities language, emotions 1.2.3 The aim of this
study was to to individuate the most vulnerable developmental
domains and which risk factors are significantly associated with a
poor outcome. To this end we have developed a developmental questionnaire on CH (DQCH).

Methods The DQCH has been created with dichotomous answers
giving a score which hinders the dispersion of data and makes it
easy to fill-in for a person knowing the child (clinical psychologist,
physician, parents). It consists of 49 questions, in 7 domains - motor
skills, personal autonomy, language development, social develop-
ment, behaviour, biorhythms, and success in school. This question-
naire was designed for an easy way to collect data on developmental
milestones and neuropsychological outcome in a large cohort of
children with CH and their age-matched controls.

Results All domains of our questionnaire show major impair-
ments in children with CH than in controls, in particular in personal
autonomy for the group with thyroidal agenesis and social develop-
ment, for ectopic glands.

Conclusions We hypothesize that children with a more severe
outcome are more frequently those of mothers affected by clinical
and subclinical forms of hypothyroidism during pregnancy.


Rovet JF Congenital Hypothyroidism: long-term outcome. Thy-
roid 1999; Neuropsychological Developmental Congenital C Child
Neuropsychological 2002.

631 INFLUENCE OF ANTHROPOMETRICAL AND MENTAL
STATUSES ON OCCURRENCE OF BEHAVIOUR DISEASES
AMONG CHILDREN OF SCHOOL AGE
doi:10.1136/archdischild-2012-302724.0631
K Lepiatiska, Belarussian State Medical University, Minsk, Belarus

To estimate influence of the anthropometrical status and personal
features on occurrence of psychosomatic frustration, in particular,
eating disorder, among children of school age.

We studied 57 children (age 15±1.3 years). They were interviewed
with Toronto Alexithymia Scale (TAS), scale of Rotter, standardized
questionnaire “Aim-Means-Result” (AMR), scale of Rean and divided
into 3 groups on the basis of body mass index (BMI). 1) A (BMI< 19
kg/m²), 2) B(19 kg/m2–24 kg/m²), 3)C (BMI≥24 kg/m²).

Results Based on the TAS 41% of boys showed higher than normal
rates of alexithymia (A –40%, B –60%, C –100%). Among girls
(75%,50%,43% respectively). AMR: 87%b and 82% can’t substanti-
ate their goals. 50% of children had psychological barriers.

Conclusions We hypothesize that children with a more severe
outcome among boys (from 59% to 100%) and lower among girls (from 75% to
45%) with an increase in BMI. Boys with a BMI> 24 kg/m² prevalied
external locus of control, the girls - internal locus of control. In ana-
lyzing the results of the questionnaire of Rean boys tended to reduce
the motivation to succeed and grow with the increase of negative
motivation with increasing BMI (success from 70% to 25%).

632 EARLY INTERVENTION OF VISUAL IMPAIRMENT MAY
PROTECT ADAPTIVE BEHAVIOUR IN DOWN SYNDROME?
doi:10.1136/archdischild-2012-302724.0632
'1'A Dresler, 'M' Bozza, 'V' Perelli, 'S' Bargagna. 'Division of General Neuropediatrics and
Neonatology, Medical University Vienna, Vienna, Vienna, Austria; 'IRCCS-Stella Maris Institute;
'Stella Maris Institute, Pisa, Italy

Down syndrome (DS) is one the most common genetic disorders.
Little is known about the impact of visual disorders in DS on daily
life. Our aim was to study the relation between the incidence of
ocular manifestations and adaptive behaviour.

Methods We performed a detailed medical history, including ocu-
lar disorders. We tested Hirschberg’s corneal reflex method, observed
eye movements during fixation of a slowly moving object, cover
and assessed the Vineland Adaptive BehaviourScales, as well as the
Coloured Progressive Matrices. 52 DS individuals with an age
range of 19 to 52 years. Results. We observed a high incidence of
ocular anomalies (refractive errors in 59.2%, strabism in 51%, motili-
ity disorders in 63.3% and congenital bilateral cataract in 16.2%),
not differing with age. The occurrence of visual disorders did neither
lead to total lower adaptive level nor show an influence on cogni-
tion. Daily living skills were significantly lower in individuals with
not corrected disorders, but these individuals showed a significant
high co-morbidity of autism with childhood onset. We observed
a majority of individuals with an adaptive functioning above the
average. Hyperopia and the presence of refractive errors were signifi-
cantly more frequent in individuals with an adaptive level above the
average. Conclusions. Visual disorders lead to a poorer performance
in adaptive behaviour in individuals with DS and also autism. This
suggests that early intervention on refractive errors and visuo-
motor skills helps in the acquisition of daily living activities, which
remain stable over the life-span. Therapeutic options for cataract
need to be addressed early.

633 WHAT IS THE EFFECTIVENESS OF DIMETHYLGLYCINE
IN TREATING AUTISTIC SYMPTOMS IN CHILDREN: A
SYSTEMATIC REVIEW
doi:10.1136/archdischild-2012-302724.0633
M Haron, G Ryan, M Randell, J Wilson, T Khattau, CHARGE: Child Health Applied
Research Group, East-midlands, Leicester Partnership Trust, Leicester, UK

Background and Aims Dimethylglycine, an amino-acid derivat-
ive, has been proposed as a treatment for Autism. A systematic
review was conducted to synthesize the best evidence relating to
this topic.