

17 PLACENTAL TRANSFUSION IN NATURALLY BORN PIGLETS.
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lood volume and its components (125-I-albumin, 51-Cr-RBCs) were easured in 195 vaginally delivered piglets immediately after ord severage. Spontaneous cord-rupture studied in 118 normal iglets took place during delivery or within 190 s of birth. The ncrement in red cell mass (RCM) during this time (Table) re-lects a placental transfusion of 60% of fetal blood volume.

Group		Cord-rupture	RCM (ml/kg)	Hematocrit
ULL-TERM:	normal	25 prenatal	23.6 ± 4.6	0.386 ± 0.034
	normal	17 120-190 s	38.4 ± 7.0	0.411 ± 0.040
"runts" (< 800 g)	11	< 5 s	35.8 ± 11.2	0.431 ± 0.047
metabolic acidosis	13	< 0-180 s	35.8 ± 6.7	0.439 ± 0.030
cord entanglement	5	prenatal	20.0 ± 3.6	0.411 ± 0.035
acute intra-partum	5	prenatal	24.3 ± 4.9	0.425 ± 0.042
asphyxia	4	60 s	23.0 ± 3.3	0.417 ± 0.031
REMATURE: ovariectomy	23	< 5 s	22.1 ± 3.0	0.358 ± 0.030
prostaglandin-F2	18	< 5 s	18.9 ± 3.4	0.310 ± 0.026

CM was significantly increased in the "runts" and in the piglets ith metabolic acidosis (base excess below -10 mmol/l) compared to he normal piglets. This may be explained by increased erythro-osis and prenatal placental transfusion, respectively. The iglets with acute intra-partum asphyxia which cords were severed 0 s after birth were deprived of placental transfusion, possibly s a result of vasoconstriction. The low RCM in the premature iglets with prostaglandin-induced deliveries indicates fetal oss of blood to the placenta.

18 ALPHA-THALASSEMIA INCIDENCE IN TURKEY.
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gy, Department of Pediatrics, Hacettepe
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Turkey.

Starch gel (both at pH 8.6 and pH 7) and agar gel pH 6.45) hemoglobin electrophoresis were carried out n the cord blood of 1100 full term babies. Trace mounts (not measurable column chromatography) of art's hemoglobin was shown in 795 (72.3 %) of the pecimens; it was found to be more than trace (2 to .8 %) in 15 (1.36 %) babies. Trace amount of Hb A₂ as also shown by starch gel electrophoresis in 10² ord bloods with trace Hb Bart's. In two cases with nencephaly Hb A₂ was found to be elevated (2.8 and .3 % respectively).

Although cord hemoglobin levels were found insigni-icantly decreased, the MCV and MC Hb values of the abies with elevated Bart's were found to be signifi-antly lower than those of the babies without or with race Bart's. The follow-up studies, and the hematolo-ical evaluation of their parents will be given in de-ail.

19 DIAGNOSIS OF MALIGNANCIES BY IMMUNOLOGICAL
TECHNIQUES.
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Immunologic tests for the specific detection of tu-
or antigens would provide a method for the early de-
tection of malignancy. Using immunodiffusion and immu-
ofluorescent techniques, it is possible to measure
antigenic markers. Carcinoembryonic antigen and alpha,
fetoprotein are helpful in following treatment and
prognosis of a patient. A new method for detecting
prostate cancer employs counter-immunoelectrophoresis.
Complement fixation studies have revealed antibodies
o sarcoma specific antigens. The study of leukemia
associated antigens with their surface receptors and
enzyme markers form a basis for future immunotherapy
with this disease. Using radiolabelled antibodies to
EA, the detection of diverse cancers has been made by
external photoscanning. Precipitation tests and immuno-
luorescent tests have been used to detect melanoma,
brain tumors and ovarian malignancies.

Skin tests and other tests (T E Rosette, P1A lympho-
cyte transformation test, macrophage inhibition test)
for cellular immunity help to measure the immune com-
petence of the cancer patient.

20 SURFACE MARKERS OF CEREBROSPINAL FLUID LYM-
PHOCYTES FROM ACUTE LYMPHOBLASTIC LEUKEMIA.
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Studies on CSF lymphocyte markers demonstrated nor-
mally a high percentage of E-rosette forming cells
(90 %). By a microtechnique the relative proportion
of T, B and null CSF cells was evaluated in two groups
of children with ALL. As CNS prophylaxis patients of
the first group received i.t. MTX during induction,
cytosine arabinoside during consolidation and MTX eve-
ry two months for three years as maintenance. Children
of the second group received X-ray during induction
and consolidation (total dose 2400 rads). Patients we-
re in complete remission from 24 to 32 months for the
first group and from 11 to 17 months for the second
one. Results showed that the lymphocytes from CSF of
the first group had a much lower percentage of T and
T gamma cells in comparison to the second group; B
cells were virtually absent, null cells were abnormal-
ly high in the first group. CSF cells of patients im-
mediately after treatment with TCT demonstrated a high
percentage of T cells. The lack of T cells in the
group of children treated three years with i.t. MTX
seems to cause such an immunological damage to discour-
age from this type of CNS prophylaxis.

21 HIGH DOSE METOTREXATE IN ACUTE LYMPHOCYTIC
LEUKEMIA IN CHILDHOOD

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Three courses of metotrexate, 500 mg/sq.m. at 3 - weekly inter-
vals, has been used as part of a consolidation therapy in Norway
during the last four years to 110 children with acute lympho-
cytic leukemia. One child died following HDM. Postmortem
examination showed that she was not in complete remission at
the time.

Sixty-eight of eighty-one children (84%) in 1st remission have
been in substained primary remission for 4 to 54 months. Five
of the children died from infections 1-2 years after induction
therapy. Therapy has been discontinued in 19 patients so far,
none of them have relapsed.

There has been two cases of CNS-leukemia among the 81 cases in
1st remission, and no recorded case of testicular involvement
so far.

22 300 CASES OF ACUTE GRANULOCYTE LEUKEMIA IN
CHILDREN.
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In 20 years we gathered 239 acute myeloblastic leuke-
mias (AML), 26 promyelocytic (APLM) and 35 monoblastic
(AMoL). During the same period 1300 acute lymphoid leu-
kemias (ALL) were treated. The peak of frequency be-
tween 3 and 8 noticed in ALL is absent in granulocytic
leukemias. AML. The remission rate is 54 % (33 % in ad-
ults). The higher the WBC, the worse the results.
With recent protocols combining daunomycin (DNR) and
aracytine the rate reaches 75 % (48 % in protocols
without DNR). The survival curve in similar in adults
and children with a median of 7 months. Survival is
shortened by a high initial WBC or a large splenomega-
ly. Only 3 % of the patients are alive after 4 years.
First relapse occurs mostly in bone marrow, unusually
isolated in meninges (7 %). A second short remission
is possible in 43 % of the cases. APLM. With protocols
using DNR and heparin the remission rate is 75 % with
a median survival of 16 months. There is no meningeal
relapses. AMoL. The remission rate is 77 % with rubida-
zone, 21 % without. The median survival is 6 months
and the frequency of initial or secondary meningeal
involvement justifies cranial X ray prevention.