

can be taken from the anterior fontanelle, but the procedure is not always easy and there are some hazards. The simplest and safest way of obtaining blood is by stabbing the heel. The following is an accredited technique. The child's foot is immersed in hot water for a few minutes. It is dried and a light tourniquet is applied round the lower leg. The skin of the fleshy part of the heel is cleaned with an appropriate dilution of spirit. After a few minutes the heel is stabbed with a Hagedorn needle or a small snick made through the skin with a sterile safety razor blade. The blood flows freely and can be collected in a test tube. Two millilitres of blood should be collected. The cut made by the blade is practically painless; bleeding stops when the tourniquet is removed and healing is prompt.

The fact that serological tests for syphilis are known to have been negative in the blood serum of the mother does not exclude the possibility of congenital syphilis. Blood may have been taken in the incubation period or the sero-negative phase of the primary stage, or the mother could have contracted syphilis after the blood was taken. Infectious syphilis is not very common at present and all these are unlikely possibilities. Nevertheless, with a matter so serious nothing should be left to chance. The syphilitic child starts life with a great handicap. The adopter who takes responsibility for an untreated syphilitic baby acquires a considerable burden and much sorrow and distress, all of which are preventable.

E.C.G. "Strain Patterns"

Q.—How may one recognize so-called "strain patterns" on an E.C.G.? How are they produced? What relationship have they to ischaemia? Do they demand any therapeutic action? Does vectorcardiography throw any light on them?

A.—The term "strain pattern" in an electrocardiogram is somewhat of a hybrid, since it is neither a descriptive electrocardiographic term nor does it clearly indicate a clinical cardiologic diagnosis. It is usually used to describe a particular electrocardiographic pattern, showing ST segment depression and T-wave inversion without increase in voltage of the R wave. This pattern is met in a number of different conditions, including some cases of ventricular hypertrophy, myocardial ischaemia, and infarction, to mention some of the commonest. The term strain is perhaps purposely vague and thus does not commit the reporter to a diagnosis. Yet, at the same time, it is probably too specific in that it seems to indicate a pathological state of the myocardium calling for therapeutic action. It is therefore best avoided except when used in specific relation to an acute clinical condition, as for instance acute right ventricular "strain" accompanying massive pulmonary embolism.

The causes of the ST and T wave changes of the "strain" pattern probably vary according to the underlying condition. A current of injury is thought to be the cause of the ST segment shift in myocardial ischaemia. Inversion of the T wave is due to an altered pattern of repolarization. Vectorcardiography is primarily of value in integrating multiple lead electrocardiography. It does not throw light on the underlying causes of the abnormal electrocardiogram, which must lie in a study of the basic biochemical and biophysical changes in the cardiac muscle cells.

REFERENCES

- Goldman, M. J., *Principles of Clinical Electrocardiography*, 3rd ed., 1960. Lange Medical Publications, Los Altos, California.
- Pozzi, L., *Basic Principles in Vector Electrocardiography*, 1961. Henry Kimpton, London.

Leucocyte Antigens

Q.—I understand that some work has been done on the "blood grouping" of white blood corpuscles. Could you please let me know something about this?

A.—Leucocytes contain many antigens and the leucocytes of unrelated individuals differ in their numerous antigens as much as their skin cells would if they were tested for skin grafting. They also possess the same ABO, MN, and

P blood groups as the red cells, but do not appear to carry rhesus blood groups.¹ Patients who have received many blood transfusions may develop leuco-agglutinins, and some multiparous women have been found to develop leuco-agglutinins against the white cells of their husband and their infant.

REFERENCE

- Gurner, B. W., and Coombs, R. R. A., *Vox Sang. (Basel)*, 1958, 3, 13.

How to Gain Weight

Q.—What is an effective answer to the not infrequent question of how weight can be gained? The type of patient I have in mind is typically a sensitive, intelligent, young female of light build and in good general health.

A.—The short answer is, of course, "By eating more." For this purpose the patient should be told that she must go on eating after she would have preferred to stop and to have frequent meals. She should be encouraged to eat all the foods that would be denied to overweight patients—bread, potatoes, jam, cream, chocolates, pastries, etc.—as well as reasonable amounts of eggs, butter, milk, fish, meat, cheese, fruit, and vegetables. If she likes the taste, a glass of stout with lunch and dinner may be helpful. Above all it should be explained that she must not use her appetite as a guide to the amount of food she ought to eat but should rely on the weighing machine; if her weight is not going up satisfactorily then she *must* eat more or else put up with remaining thin—she can't have it both ways.

There seems to be no certain way of stimulating the appetite, but nitrogen anabolic steroids do seem to help some patients. A number of these are now available and it is hard to say which are better than others. A suggestion is to try "dianabol" (methandienone) 5 mg. daily or twice daily for not more than six weeks at a time, repeating the course after a month if it appears to have been helpful.

Folic Acid

Q.—Has folic acid given orally (5 mg.) or by injection (10 mg.) any carcinogenic or any other adverse effect on the blood or any other system of the body?

A.—There is no evidence that folic acid in ordinary therapeutic doses has a carcinogenic effect on the bone-marrow or any other tissue. Folic acid derivatives are required for the synthesis of deoxyribonucleic acid (D.N.A.) and therefore there is increased utilization of folic acid when there is a rapid growth of cells and increased synthesis of D.N.A. It is for this reason (and not because folic acid has any carcinogenic activity) that folic-acid antagonists are sometimes of value in patients with leukaemia and other forms of malignant disease.

Correction.—In the report of the Birmingham Hospital Committee inquiry (March 24, p. 91) it was stated that Dr. John Tibbetts gave evidence. This should have read Dr. John Tibbits.

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