ORTHOTOLIDINE HYDROCHLORIDE TEST FOR BLOOD IN URINE

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The procedure previously described (Zwarenstein, 1949) has been modified as follows.

A small knife-point (about 5 mg.) of solid *o*-tolidine hydrochloride is added to 5 drops of urine in a test-tube and thoroughly mixed. A drop of the mixture is placed on a small piece of Whatman No. 1 filter paper (about 17 mm. square) on a white porcelain tile. The drop is allowed to soak into the paper and one drop of acid-peroxide reagent is added.

Negative and positive reactions for haematuria are the same as those described previously. Free haemoglobin, however, gives a coarse granular reaction. When tests for sensitivity were performed with the new procedure it was found that positive reactions at the higher dilutions were much easier to read and smaller amounts of red cells and free haemoglobin could be detected. Slight but definite positive reactions were obtained with a urine containing 1,000 red cells per ml. (a dilution of 1 in 5 million) and with a urine containing 50 μ g. free haemoglobin per 100 ml. (a dilution of 1 in 300,000). The results were more consistent than with the original procedure.

It must be emphasized that the 3% hydrogen peroxide used for the preparation of the acid-peroxide reagent must be freshly diluted from 30% and that the mixture of equal volumes of glacial acetic acid and 3% hydrogen peroxide should be allowed to stand for 24 hours before using.

REFERENCE

Zwarenstein, H. (1949). *Journal of Clinical Pathology*, 2, 145.