BASIC MEDICAL SURVEILLANCE ESSENTIALS FOR PEOPLE WITH DOWN'S SYNDROME.

THYROID DISORDER

(One of a set of guidelines drawn up by the Down's Syndrome Medical Interest Group)

1. At all ages thyroid disorder (usually hypothyroidism) occurs more frequently in people with Down's syndrome than in the general population [1.2.3.4.5]. Around 10% of the school age population have uncompensated hypothyroidism. The prevalence increases with age [6]. If undiagnosed, thyroid disorder constitutes a significant cause of preventable secondary handicap. Diagnosis on clinical grounds is unreliable [7.8]. Biochemical screening is essential. As in the general population those with significant abnormalities of any TFT should either be treated (if there is uncompensated hypothyroidism) or kept under close clinical and biochemical surveillance.

2. All babies in the U.K. have a neonatal screen for hypothyroidism [9]. For children with Down's syndrome each district should have a policy of screening after this, starting in infancy and continuing throughout life.

3. Biochemical testing, including estimation of T4, TSH, and thyroid antibodies should be carried out at least once every two years from age 1 and throughout life [6.11].

4. Fingerprick dried blood spot TSH measurement (Guthrie) is being investigated. Preliminary evaluation suggests that this may prove an effective screening procedure [10]. If available, and if replacing venous testing (see 3 above) this should be carried out at least annually.

5. Transient changes may occur.[11.12]. Mildly raised TSH (not greater than 10mu/l) or the presence of antibodies with normal T4 and no clinical evidence of hypothyroidism does not usually warrant treatment [13.14]. It does however indicate increased likelihood of developing uncompensated hypothyroidism. Such people should therefore be tested more frequently than those with normal test results. A specialist opinion may be required.

6. Clinicians should always bear in mind the prevalence of thyroid disorder in people with Down's syndrome and have a low threshold for testing thyroid function if there is any clinical suspicion at times between biochemical testing.

7. As in the general population key clinical pointers are lethargy and/or changes in affect, cognition, growth, or weight.

8. Consideration of hypothyroidism is mandatory in the differential diagnosis of depression and dementia [15.16].

9. The possibility of hyperthyroidism should also be born in mind [5.17].

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