Public Health England

Protecting and improving the nation's health

Health inequalities: Thyroid disorders

Introduction

Thyroid disorders are very common and tend mainly to occur in women, although anyone can be affected[1]. About one in 20 people has some kind of thyroid disorder[1]. Hypothyroidism (underactive thyroid) is the most common disorder and symptoms include tiredness, feeling cold, weight gain, poor concentration, and depression[1].

Prevalence and risk factors

Data from GP records for 47% of patients in England in 2017/18 indicate that the number of patients with a recorded learning disability who had a diagnosis of hypothyroidism was 8.1%, compared to 3.7% of other people (standardised prevalence ratio 2.8)[2]. The rate increased with age, being 3.9% at age 18-24 and rising to 13.6% for those aged over 75.

A study of 812 people with learning disabilities aged 50 or over in the Netherlands found that 18.3% had a diagnosis of thyroid dysfunction[3]. Down syndrome is associated with thyroid dysfunction, with rates of hypothyroidism varying from 13% to 63% with a female to male ratio of approximately 3:1[4]. Across international studies, 27% of adults with Down syndrome had hypothyroidism or subclinical hypothyroidism[5]. For 186 people with Down syndrome in Scotland, 24.2% had a thyroid disorder detected at a comprehensive health assessment[6]. There is only limited evidence regarding the prevalence of hyperthyroidism among people with Down syndrome (estimated 3% across studies)[5].

Impact on people with learning disabilities

Uncontrolled hypothyroidism in the neonatal period may be further detrimental to psychomotor development, somatic growth and cognition[4].

In an Australian study, 56.8% of parents of a young person with Down syndrome and hypothyroidism reported that there was an impact upon the young person's daily life[7], with issues including lethargy and difficulties in having blood tests carried out (for example due to fear of needles/hospitals). This raises the question as to whether this condition is being adequately monitored and maintained for this group[7]. However, there is no known similar data from the United Kingdom.

Healthcare and treatment

Early diagnosis is necessary to avoid major adverse consequences of hypothyroidism, and screening for hypothyroidism among people with Down syndrome is justified[4].

People with learning disabilities may be unaware of the medical implications of symptoms they experience, have difficulty communicating their symptoms, or may be less likely to report them to medical staff[8]. It is important that people with learning disabilities attend health checks as targeted health checks for people with learning disabilities result in increased identification of thyroid disorders[9]. Once the diagnosis of a thyroid disorder has been made, management is generally similar to that in the general population[10].

Social determinants

The quality of social care support received and access to appropriate healthcare is likely to impact on the early identification and management of thyroid disorders in people with learning disabilities but there is no known research that has specifically addressed this issue.

Resources

Down's Syndrome Association (2019) Easy read guide on Thyroid

References

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