Scottish SPINA BIFIDA Association

Precocious (or early) Puberty

One of a series of fact sheets produced by the Family Support Service

In the UK, the average age at which girls start breast development is 11 years with periods commencing at age 13 years, and early puberty is defined as breast or pubic hair growth before the age of eight. In girls, the adolescent growth spurt usually coincides with the onset of puberty. The onset of male puberty is less apparent and more prolonged with full maturity being reached at an average age of 15 years. Boys also have a later growth spurt. The convention is to regard male puberty as premature if it starts before the age of nine.

The programming of puberty is partly determined by inheritance so that girls usually match their mothers and sisters as to the onset of periods. A variety of brain upsets can disrupt this delicate programme and allows puberty to emerge early. It is now recognised that hydrocephalus, and especially high pressure within the third ventricle during infancy or early childhood, may result in premature or precocious puberty. Girls are more likely to have early puberty than boys.

It is good practice for children who have had hydrocephalus procedures to have regular growth measurement and, for height, weight and the onset of breast and pubic hair to be documented and compared to standard charts.

Once a girl is suspected of having early puberty, this can be further confirmed by ultrasound scanning of the ovaries and uterus. It is also useful to measure bone maturation by checking the so-called bone age on an X-ray of the left hand and wrist.

Not all children with early puberty require action and intervention. It may be innocent and unobtrusive if it manifests solely as modest breast or pubic hair growth. A slowly emerging puberty is clearly less worrying than one where pace is rapid and the onset of periods likely to be unacceptably early.

A specialist Paediatrician will help in assessment and prediction of the likely course of the puberty. Treatment may be advised if the pace of the early puberty is worrying to the child and family and this will be guided by the ability of the child to cope with the physical and emotional demands of sexual maturity. There may also be an issue of potential loss of future height growth and the bone-age X-ray will make this clear.

In a small proportion of children, usually girls aged six to nine, there is a place for drug treatment to suppress the puberty until a more appropriate age.

Fortunately, medical science has devised treatment capable of damping down the signals to the ovaries and testes. This type of medication has a good record of effectiveness and safety and puberty will re-emerge when it is stopped. These drugs were developed to treat adults with prostate cancer and endometriosis and, because the market for treating children with precocious puberty is a very small one, pharmaceutical companies have not applied for licences for use in children. Nevertheless, large studies in Europe and North America have confirmed their role in managing early puberty, and specialists are permitted to recommend their use. A relative disadvantage of these drugs is that they need to be given by injection under the skin at monthly or three monthly intervals.

If you have any questions or would like further information, please do not hesitate to contact the Family Support Workers at:

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