

sclerosis in young patients was present in this case. It is suggested therefore that the atherosclerosis in this case can be directly related to the underlying systemic lupus erythematosus and not to primary coronary disease (Kong et al., 1962; Tsakraklides et al., 1974; Homcy et al., 1982). In addition, there is evidence that this patient had had previous severe ischaemic attacks, as shown by coronary artery changes illustrated in Figures 1 and 2. These obviously contributed to the terminal event.

The findings in this case, in consonance with other similar reports (Halder and Roberts, 1981; Homcy et al., 1982), would indicate that some of the pathological processes in systemic lupus erythematosus can be considered as atherogenic. Further studies are required to confirm this.

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5. Anabolic Steroids — the Drugs that Give and Take Away Manhood. A case with an unusual physical sign

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ABSTRACT

A case is presented in which the abuse of anabolic steroids by a body builder led to an unusual physical sign. The case discusses the effects that anabolic steroid abuse can have upon manhood. The frequency of anabolic steroid misuse is increasing. The implications of this with respect to psychiatric illness and violent crime are discussed.

It is well known that the use of anabolic steroids among young men, body builders in particular, is growing apace (Perry and Littlepage, 1992), and they may be aware of the risks of impurity and contamination. There is a wide range of anabolic steroids in use; they are often used in doses of greater than 1mg/kg

per day. As well as single use, the misuser may 'stack' (use more than one at a time) or 'pyramid' (use increasing doses of a given drug) the steroids (Kennedy, 1990). The physical and psychiatric effects of anabolic steroids are well known (Kashkin and Kleber, 1989; Brower, 1992; Pope and Katz, 1988).

However, we describe a case with psychiatric symptoms, a violent outburst and a unique (?) physical sign.

CASE STUDY

A 27-year-old man had started body building in his early twenties, and by the time of his arrest

was lifting very seriously. He complained of radiation being pumped into his prison cell by his parents' neighbours and was convinced that he had cancer of the liver. This is an interesting delusion because there are three cases of hepatoma associated with anabolic steroid misuse in the literature. He also had auditory hallucinations (hearing voices commenting on his actions) and delusions of control, but no other passivity phenomena.

He had had an operation to remove an undescended testicle at the age of twenty, a size-matched prosthesis was inserted at the same time. There was no previous psychiatric history. He was a non-smoker and had only occasional alcohol use. He did not abuse any other substances. He did not consider anabolic steroids to be 'drugs'. His only previous forensic history was a minor public order offence at the age of 18. He is presently charged with three Section 18 woundings (Offences Against the Person Act, 1861). These were violent incidents at a public house in association with others.

Physical examination on admission showed a very muscular man, his upper body more so than his lower. The only abnormalities were a prosthetic left testicle and a soft right testicle, which was much smaller than that on the left (the two had been matched in size when the prosthesis was inserted). There were also what appeared to be injection sites along the inguinal ligaments.

Blood investigations showed him to have normal urea and electrolytes and liver function tests. His LH and FSH were at the bottom end of the normal range. The testosterone level was 10nmol/l (11–36nmol/l).

He was treated with intramuscular zuclopenthixol. As his psychotic symptoms improved he became low in mood for some ten weeks after he ceased to use anabolic steroids. His mood then gradually lifted without treatment.

On recovery he admitted to using anabolic steroids. At the time of the alleged offence he was near the end of a course of anabolic

steroids which he had both stacked and used in a pyramid. He described being aware of changes in his personality but being unwilling to admit to himself that the steroids might be responsible.

DISCUSSION

Pope and Katz (1988 and 1990) described the possible role of anabolic steroids in violent crime. In the United States this has been used as a legal defence. In 1986, in this country, in the 'M4 rapist' case (*The Times*, 31 January and 6 November 1986), addiction to anabolic steroids was used as a mitigating factor. The psychiatric disorder that anabolic steroids precipitate responds to anti-psychotic medication and improves with time. Such mood swings as he suffered after withdrawal from the steroids are well described (Pope and Katz, 1988). The person must be advised not to use anabolic steroids again.

This man has a unique physical sign which graphically demonstrates the effect that these drugs have on the male hypothalamic pituitary gonadal axis. It is possible that his fear of liver cancer was due to the risks of this condition secondary to anabolic steroid use. It is often reported that anabolic steroids add to 'aesthetic' manhood. That they also reduce it, in a less obvious way, is less often reported.

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