Pot and Potency

The subjective effects of taking marihuana appear to relate to the user’s personality and expectations and their interaction with the environment in which he happens to be. Though the subject’s behaviour is usually relaxed, sexual hallucinations have been reported, and some maintain that they experience increased sexual interest and activity. Objective evidence for these effects is scarce. Kolansky and Moore\(^1\) claimed that long-term use of marihuana by adolescents was associated with loss of sexual inhibitions and increased promiscuity in both heterosexual and de novo homosexual directions, but there were no control data available in this study for comparison. Animal experiments suggest that cannabis decreases sexual activity,\(^2\) so the real effects on sexual patterns is far from clear.

Recently there have been reports that cannabis may produce objective changes in gonadal steroids in man. Kolodny and colleagues\(^3\) studied 20 heterosexual men who smoked cannabis on at least four occasions per week for at least six months and who had no evidence of liver or endocrine disease and apparently took no other drugs; there were 20 control males. They found that the marihuana smokers had much lower levels of circulating testosterone than the controls and that this reduction was related to the amount of cannabis smoked. Unfortunately it was not possible to study the development of the fall in androgens with time, but when three subjects stopped smoking the levels of testosterone rose. There appeared to be no gonadal resistance to exogenous chorionic gonadotrophin in that testosterone levels rose normally. Serum levels of luteinizing hormone and follicle stimulating hormone were indistinguishable in the control group and the marihuana users. This is surprising, since one would expect a rise of luteinizing hormone in response to the fall in testosterone. It suggests that the drug may impair the normal feedback mechanism and produce inappropriately low levels of luteinizing hormone. Though the controls were not studied, the marihuana takers seemed to have had rather low sperm counts, and the counts were inversely proportional to the amount of drug taken. Only one subject with mild gynaecomastia had raised prolactin levels, and breast swelling has been reported before.\(^4\) Sex activity is difficult to study, and no attempt was made to compare the groups. However, sexual function was reported as unimpaired in 18 of the 20 men. Of the two impotent men, one stopped taking cannabis and his potency became normal.

Kolodny and colleagues have indicated that the reports of heightened sexual function associated with cannabis may be erroneous and that gonadal function may actually be impaired. As indicated by the controversy which this article has aroused,\(^5\) it is clear that further work is required to determine whether the observations are truly related to the drug rather than to the social environment and to altered behaviour patterns associated with taking cannabis. If the report is confirmed we need to know how quickly the effect may be seen and whether it is always reversible.

Other centrally acting drugs may be associated with impaired gonadal function too. Thus in animals olsigomysia, testicular atrophy, decreased sexual activity, and prolonged oestrus have been described and histopathologically, and in humans amenorrhoea, olsigomysia, and reduced potency have been reported.\(^6\) This is probably the result of raised circulating prolactin levels induced by these drugs, for hypoprolactinaemia is known to be often associated with hypogonadism. This is probably due to direct prolactin-induced blockade of the action of the gonadotrophins on the gonads.\(^8\) Alcohol too may depress the secretion of luteinizing hormone and testosterone, particularly in people not accustomed to drinking.\(^9\) This may explain, at least in part, the early reference by Shakespeare\(^10\) to the poor sexual performance after alcohol.

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Hindquarter Amputations

Most surgeons find amputation of limbs an unpleasant exercise of their surgical skills but one that they undertake without hesitation when the need arises. For many surgeons, however, the thought of undertaking a hindquarter amputation is totally abhorrent—not because of the complexity of the operation but because of the mutilation that it causes. It has been described as one of the most colossal mutilations practised on the human frame.

The operation gained its notoriety from the appalling results obtained in the early days when it was undertaken. In 1909 Pringle reviewed\(^1\) the results of reported cases and found that the operation carried a 75% mortality. In the next review in 1915 improved surgical techniques had reduced this deathrate to 58%. The work of Gordon Gordon-Taylor did much to improve both the reputation of and the results from the operation. Gordon-Taylor described\(^2\) the operation as “a simple surgical exercise, well suited for an elderly surgeon possessed of a modicum of anatomy and the physical ability to stand by an operating table for a mere fifty to sixty minutes.” His results deny this casual statement. In 1935 he published,\(^3\) with Philip Wiles, the results of 79 operations—with a 48.5% recovery from the operation. In 1946, with Patey,\(^4\) Gordon-Taylor was able to report a 71% recovery out of 73 cases, and finally between 1947 and 1957 he had no fatalities in 50 more operations. He stressed the need of biopsy before the operation and also advocated the use of spinal anaesthesia. His patients were all suffering from tumours, but the operation has been performed by others for tuberculosis, infection, and hydatid. There has also been one case of a traumatic hindquarter amputation, and the patient survived.\(^5\) The best results have been obtained in patients with chondrosarcoma. Melanomas, osteosarcomas, Ewing’s tumours, Paget’s sarcomas, and malignant synoviomas have all given poor results.

Jones\(^6\) has just reviewed 17 cases of hindquarter amputation he performed between 1949 and 1970. He reports that there were no immediate fatalities following the operation—a tribute to his surgical skill. All his patients were suffering from malignant disease, and six of them had chemotherapy of the pelvis. This group produced the best results of the series. One patient, a 12-year-old girl, survived only six months, and one of the others died five years after amputation from a tumour she had

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