Deliberate Aspirin Intoxication

Brit. med. J., 1966, 1, 1090

The deliberate seeking of salicylism is a form of drug dependency not fully described in the literature. It has been stated with reference to habitual consumers of phenacetin, acetanilide, and aspirin: "A few individuals appear to feel positive elation or even inebriation and these are more likely to use the drugs to excess and to feel the withdrawal more commonly. . . ." (Querries and Minor Notes, 1940); the writer did not provide details of patients. Gross and Greenberg (1948) listed the few reports of dependency on salicylates. Salicylism was noted in two, but in neither was this deliberately sought by the patient.

The following case reports are of interest because each patient had a distinct pattern of salicylate intoxication, and because of the general issues regarding the consumption of analgesics.

CASE 1

A woman aged 30 had a right temporal epileptic focus. Dependency on drugs started in her late teens, but in the past 12 months she has abstained from habit-forming medicines. She has taken glutethimide, paraldehyde, barbiturates, dexamphetamine sulphate and amylobarbitone (Drinamyl), amphetamines, phenmetrazine, alcohol, and aspirin. The length and severity of intoxication varied with each substance. On glutethimide she was "never drunk, never sober, always at a certain level"; she drank paraldehyde so that she became too intoxicated to walk; she consumed stimulants intermittently; and she had isolated incidents of alcohol intoxication.

The patient's intoxication with alcohol conformed to the "alpha alcoholism" described by Jellinek (1960). It resembled her salicylism in that both conditions were rapidly attained, then allowed to disappear fully. She might not start taking either substance again for days or weeks, but with aspirin intoxication, which lasted from 30 to 60 minutes, several peaks of salicylism could alternate with hours of freedom from the effects of the drug. Four tablets, each containing 300 mg. acetylsalicylic acid, initiated relaxation with the desire for more aspirins, but she needed to take 20 to 30 tablets within an hour to produce the desired degree of salicylism. She increased the intake of aspirin in order to obtain a constant effect—that is, judging from her subjective impressions, tolerance developed. She was not distressed by stopping aspirin. She adjusted intake so that her salicylism was not apparent to others, and so that visual illusions or hallucinations (which were frightening) did not occur. Apart from these effects salicylism was pleasant; it produced an agreeable haze, with a disembodied feeling of detachment accentuated by deafness; tinnitus was "a gentle singing noise, very soothing." Salicylism produced a condition of "isolation, relaxation, protection."

CASE 2

This lady, aged 58, had no definite psychiatric abnormalities and was completely teetotal until her middle 40's, when she began to take dextroamphetamine, phenmetrazine, caffeine, and alcohol. Her drinking developed the high, continuous pattern of consumption described as "delta alcoholism" (Jellinek, 1960). She was unable to abstain even for a day, though she retained some control over her degree of intoxication. During the year before her admission to hospital she was taking proprietary aspirin almost daily, though she did not develop salicylism during this period. She said that the aspirins gave her energy and eased head troubles induced by the alcohol and the noise in the laundry where she worked. She stated that her workmates often took them and that her mother and husband regularly consumed aspirins. She justified her dependence on the drug by saying, "There's hundreds of people taking aspirin."

She has been in hospital since April 1963, and has remained there because her husband refused to allow her to return home. It was considered that she would be incapable of taking care of herself without reverting to aspirin and alcohol if she were discharged under these circumstances. Since admission she has substituted aspirin for her former intoxicants. On four occasions she

has insidiously developed salicylism. She is vague about her maximum dose of tablets, stating that she took as many tablets as came out of the bottle on about four occasions in the day. It is probable that salicylism occurred on each occasion at a maximum daily dose of about 100 tablets. Each time she gradually increased the dose for about three weeks, after which salicylism became obvious. Clouding of consciousness and hypernoea appeared, and she described visual and auditory hallucinations, dizziness, deafness, and tinnitus. The tablets stopped her thinking about her marital problem, made her sleepy, eased vague muscular pains, gave her a "lovely feeling like being drunk," and produced a "craving" which is like her inability to stop drinking alcohol. She continued taking them because she hoped they would relieve her dizziness and tinnitus. Suicide played only a minor part in her complex motivation.

COMMENT

The dissimilar patterns of salicylism in these two patients suggest that this drug, like alcohol, produces types of intoxication which are characteristic of the individuals who are taking it. It is possible that these individual reaction patterns may have a pharmacogenetic basis, as has been shown to be the case with isoniazid (Evans *et al.*, 1960). Case 1 retained control of her aspirin intoxication and was able to abstain from aspirins. This pattern resembled that of her alcohol usage. Case 2 became unable to control her degree of salicylism and lost her power to stop taking the drug. This pattern did not resemble her own or other recognized forms of alcoholism.

It was clear that aspirin originally exerted a placebo effect in Case 2. This probably arose from auto-suggestion, though her associates may also have contributed to this effect (Wilson, 1962). After admission she sought salicylism for its resemblance to alcohol intoxication, presumably as a psychological compensation for her new-found abstinence from alcohol and stimulants. Consciousness and judgment became impaired and she began to believe that further consumption would relieve the unpleasant effects which the drug was producing. The onset of an advanced stage of salicylism whenever she now resumes the drug suggests that a change in her metabolic reactions to acetylsalicylic acid may have finally occurred.

The public probably consumes aspirin and similar compounds for reasons in addition to their analgesic effects. The importance of the placebo response in this connexion is not clear, but Wilson (Wilson, 1963; Wilson and Beacon, 1964) has shown that Drinamyl can be consumed for its placebo effect, and Seevers (1962) has drawn attention to the fatalities produced in Switzerland and Sweden as a consequence of popular myths about aphrodisiac properties in certain analgesic tablets. It is possible that salicylate intoxication may be sought more commonly than is realized; some instances of aspirin overdosage attributed to suicidal intent could be unrecognized examples of this. It is clear that dependence of the aspirin type does occur (Wilson, 1965). It is therefore desirable that consumption among the general population should be lowered, not merely on account of the apparently rare developments described above, but also because of the commoner effects of salicylates and phenacetin.

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