

Cannabis Indica in 19th-Century Psychiatry

BY ERIC T. CARLSON, M.D.

The author presents a study of the history and usage of cannabis indicus (the 19th-century pharmacological term referring to the plant we today call cannabis sativa indica). His review of the drug's physiological and psychological effects reveals that most of the effects reported in the 1960s were known to writers of the 19th century, when the drug was alternately considered a cure for and a cause of insanity.

THE INTRODUCTION of reserpine and chlorpromazine into clinical psychiatry early in the 1950s led many writers to herald the arrival of the Age of Tranquilizers, if not of tranquillity. The following years brought compound after compound, each with a bewildering array of molecular manipulation and each with a greater promise of success. Such optimism, touched with a bit of condescending superiority, could lead one to feel sorrow for the limitations placed on the practice of our psychiatric predecessors. It is an error, however, to think that drugs have only recently played a role in the treatment of emotional problems. For example, in 1880 George Beard, an eminent American neuropsychiatrist, praised a psychotropic drug:

Another remedy that perhaps will become, if it is not already, one of the major divinities of neurology is cannabis indica. This remedy has the reputation of untrustworthiness and unreliability, both of preparation and of action. This reputation it is very fortunately losing. I find that for some conditions cannabis indica is one of the most trustworthy, most reliable, and valuable of remedies (I. p. 148).

What enabled Beard to write about this drug with such optimism?

Although there is a scattered earlier medical literature on cannabis (2), it was introduced forcibly into 19th-century medical awareness by two pathways. The British colonialization of India brought a number of English physicians into contact not only with the technological uses of

Revised version of a paper read at the 126th annual meeting of the American Psychiatric Association, Honolulu, Hawaii, May 7-11, 1973.

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This work was supported in part by Public Health Service grant LM-0019 from the National Library of Medicine, National Institutes of Health.

The author wishes to express his appreciation to Mr. Robert W. Kohn for his assistance in preparing a paper under the author's direction titled "Cannabis and Its Medical Usages, 1839-1899," which was supported by the Summer Fellowship Program of the National Institute of Mental Health, and to thank Mr. Jeffrey Wollock for his editorial assistance.

hemp as cordage and textile but also with the medical uses in the Indian tradition. One of these physicians was Dr. W.B. O'Shaughnessy, who had trained in Edinburgh before becoming Professor of Chemistry and Materia Medica at the Medical College of Calcutta. He studied the botanical information about the plant, described its various popular preparations, reviewed the historical literature, and experimented on the drug in numerous animals as well as using it among a selected group of patients. He first wrote up his results in 1838 for the *Transactions of the Medical Society of Calcutta*, which is relatively unobtainable in the West. In 1843 a London reprint (3) made his writings more available to the medical profession.

Further west from India, the borders of the Mediterranean had been an endemic area of hemp use. During the Napoleonic campaigns, particularly in Egypt, the drug reappeared on the scientific scene. In 1810 Rouyer, an apothecary to the Napoleonic troops, published a paper on cannabis (4) that started a small trend of French literature on the subject.

Later, French interest in the drug, which eventually spread throughout the Bohemian elements of Paris, began with an idea fostered by Dr. Jacques Moreau de Tours. He was superintending physician at Bicêtre and was responsible for initiating important reforms in the treatment of the mentally ill at this institute. He had learned of cannabis during a visit to Egypt in 1837 (5) and believed cannabis could be used therapeutically to manage the emotionally disturbed. It was his 1845 book, *Du Hachisch et de l'Alienation Mentale: Etudes Psychologiques* (6), along with O'Shaughnessy's, that largely introduced the therapeutic use of hashish to Western psychiatry (7).

The first psychiatric notice of hemp in America was a review of Moreau's book in the second volume of the *American Journal of Insanity*, written by the journal's founder, Dr. Amariah Brigham (8). Brigham had studied in Paris in the late 1820s. There is no evidence that he learned about cannabis at this juncture, but he had developed a lifelong interest in the French literature (9). In his review of Moreau, he quoted passages from Moreau's self-experiments with hashish and the reactions he recorded. However, he criticized the fact that Moreau did not give it a larger trial before reporting his results. Brigham was intrigued with the topic and made arrangements to obtain two ounces of the pure extract from Calcutta. He reported:

Most of this we have used in the Lunatic Asylum at Utica, in doses varying from one to six grams. From our limited experience we regard it as a very energetic remedy, and well worthy of further trial with the insane, and thank M. Moreau for having called attention to its use (8).

In addition to Amariah Brigham, Samuel B. Woodward, a fellow founder of the American Psychiatric Association and its first president, gave cannabis a medical trial, but in his report four years later he stated his belief that it would be of little value for psychiatry (10). A hiatus of interest ensued in America until the 1859 meeting of the Association, when another future president, John P. Gray, reported on his experiences (11). He stated that there had been a reawakening of interest in the drug in the past three to four years. Although Gray presented no evidence of this, there were two popular accounts in American literature during this period that probably had an influence. Bayard Taylor had been introduced personally to hashish during his travels in Damascus and reported his experiences in 1855 in his *The Land of the Saracens* (12). His reactions were noted by the American Provers' Union in 1859; they also used information obtained from Gray in their drug evaluation (13). A more enthusiastic and mystical type of involvement was reported in 1857 by Fritz Hugh Ludlow in his *The Hashish Eaters* (14).

Although attention to cannabis never did disappear from the literature, articles seemed to emerge in clusters. The earliest note in the *Journal of Mental Science* appeared in 1878, presaging a number of articles that would be published in the decade following 1888. Some of this latter literature reflects the increasing concern over the popular and widespread use of the drug in India that led to the Indian Hemp Commission Report of 1894. It is no accident, therefore, that much of the general medical literature of the 1890s was devoted to the toxic effects of cannabis.

PSYCHOLOGICAL EFFECTS

No writer seemed to believe cannabis was an inactive drug; they all commented on its confusing combination of both stimulating and sedating effects. It was generally thought to be a narcotic, and Woodward called it a "stimulant narcotic" (10). Because cannabis has a multitude of properties, this description fits with its various classifications up to the present time: stimulant, depressant, hypnotic, anesthetic, sedative, euphoriant, tranquilizer, hallucinogen, psychotomimetic, and intoxicant, as well as narcotic. Its stimulating effects perhaps brought the widest comments. It created a pleasing intoxication, made the taker cheerful, frequently brought forth a mirthful laughter (but a laughter that sometimes alternated with fits of tearfulness) accompanied by a loquaciousness that could reveal fantastic ideas and even cause the taker to approach a state of ecstasy.

Dr. James L. Athon of the Insane Hospital at Indianapolis said that it resembled "laughing gas" in its effects (11). Its powerful tranquilizing effect was demonstrated when it was used for a patient bitten by a rabid dog; it removed all the horrors of the disease, even though the patient died (3). The effects would progress to a sense of heaviness, torpor (even to the point of reported catalepsy), and finally to a profound sleep from which it

would be difficult for one to be aroused. Frequent observations were made of the stimulating effects on various drives. Appetite improved and even became ravenous, Thirst increased and sexual drives were stimulated (most references are to men). Toxic effects were also reported (15-17).

USES IN PSYCHIATRIC TREATMENT

As might be expected, the uses of cannabis in psychiatric treatment generally followed the effects described above.

Insomnia

Frequently cited as a sedative, a hypnotic, or a soporific, cannabis was widely prescribed for insomnia (18). Gray said that it quieted more and was less stupefying than opium (11). Cannabis gave a "more natural and refreshing" sleep that was close to sleep induced by hyoscyamine. Dr. J. Russell Reynolds, physician to Queen Victoria, reported that in his over 30 years of experience cannabis was incomparable for the treatment of the kind of senile insomnia associated with wanderings, and it was also most useful for the night restlessness seen in general paresis (19). He said that in the former condition he had used it in some cases for years without having to increase the dosage.

Delirium Tremens

Cannabis indica was also used to produce a "happy sleep" in this distressing condition. After an extensive trial, O'Shaughnessy felt cannabis was a much more certain remedy and better than opium or wine. Not only did it procure sleep, but it reduced the "appalling terror" that so often plagued its victims (3). On the American scene, Dr. William Mount of the Hamilton County Lunatic Asylum (Cincinnati, Ohio) had treated a large number of cases and was never disappointed in his attempts to induce sleep (11). Dr. Erastus Edgerton Marcy, an American homeopathist, also found it useful but was less enthusiastic with his results, as was Dr. Reynolds in England (13).

Mania

John P. Gray gave the most positive report of the therapeutic effects of cannabis when he stated that it was a "remedy most marked, and most favorable in acute mania" (11). On the other hand, his colleague, Woodward, had said that the results "are anything but satisfactory" (10), and Reynolds was more scathing in calling it "worse than useless" (19). C.W. Suckling, Professor of Medicine at Birmingham, England, thought it deserved "a better report than it has obtained" (20). He found it almost specific in certain cases of mental confusion brought on by a "moral shock," such as the illness of a close relative. He reported that this condition occurred more often in women and that he had cured several cases within a fortnight. Gray had also used cannabis successfully in religious mania and in puerperal mania, as had

Dr. L. Warner (13). Almost all seemed to agree with Brigham's initial observation that it was of no use with the chronic manias, the stupid, or the demented. The one exception was an early report by the eminent British psychiatrist John Conolly (21).

Melancholia

With the widespread reports of the pleasant and cheerful stimulating effects of the drug and its reduction of horrible feelings and fears, it was inevitable that cannabis was to be subjected to extensive trial in the treatment of melancholia. Brigham's trial with cannabis was mainly with melancholics. He found that "it caused an exhilaration of spirits for a short time" but that it had no lasting effect (8). Years later, Dr. Andrew McFarland, Brigham's assistant during the time of his trials with cannabis, recalled that Brigham had prescribed the drug with great enthusiasm and expectations. After a few months, however, Brigham's enthusiasm subsided as his expectations for cannabis were not met. Most writers agreed in finding that it was useful only sometimes (11, 19, 20).

Neurasthenia

As the last half of the 19th century moved forward to its conclusion, the neurological profession experienced a rapid maturation and inevitable professionalization. In their practice, neurologists saw many patients who did not require hospitalization but whose myriad complaints often had an emotional or psychophysiological origin. Of these complaints, we shall discuss only the then newly diagnosed condition of neurasthenia.

The diagnosis of neurasthenia, an unclear condition accompanied by marked fatigue and various physical complaints, naturally overlapped the diagnoses of melancholia and hypochondriasis. Dr. Marcy found cannabis eminently serviceable in hypochondriacal problems of women. He recounted, for example, the case of a 40-year-old woman who had been confined to bed for 7 months with a "morbid sensitiveness" of her entire nervous system. Any exertion would immediately cause a "great sense of prostration, and a death-like sinking" feeling in the pit of her stomach. She had not improved with her previous therapy, but a few weeks of taking cannabis allowed her to be up and about and almost symptom-free (13). This case in 1859 sounds very similar to those of George Beard which he diagnosed as neurasthenic. Beard found cannabis useful for "different phases or manifestations of neurasthenia," but he frequently combined it with other medications (1).

cratic reactions (22). It was well recognized that an overdose could cause mental confusion and excitement (18, 23-25). However, this was usually understood as a brief state of intoxication that cleared within a day or two. The possibility of adverse reactions undoubtedly increased as some users mixed stramonium, camphor, opium, or brandy with their cannabis.

More alarming was the possibility that the regular use of cannabis might be a cause of insanity. In 1878 the *Journal of Mental Science* first reported that the mental illness of over 30 percent of hospitalized patients in Bengal was attributed to the use of cannabis (26). Similar findings were later noted in Egypt, where the chronic cannabis users were hashish smokers (27-29). The British House of Commons ordered an investigation that finally led to the Indian Hemp Commission Report of 1894. One of the psychiatric testifiers, Dr. J.H. Tull Walsh, published his testimony separately (30, 31). Both he and the commission found that acute cannabis reactions paralleled those of acute alcoholic intoxication. Others also observed this similarity. The commission concluded that when used moderately, there was little risk of adverse reactions to cannabis but that excessive usage could be associated with poverty, bronchitis, and insanity, especially in those who were "weak-minded" (32, 33). At the same time Norman Kerr, a British physician who had recommended the use of cannabis in the treatment of withdrawal symptoms in opium addicts, added to the 1894 edition of his book sections both on cannabinomania and hashish inebriety (34).

It is on this note that the history of 19th-century psychiatric concern with cannabis indica comes to an end. Cannabis had been recognized from the onset as a potent medicine, but the difficulty of obtaining a standardized preparation made its use difficult for the practitioner. Its use in mania, melancholia, and delirium tremens seemed to offer some hope, but uncertain results led to gradual discouragement and disuse in the mental hospitals. However, its apparent value for insomnia, migraines, and even epilepsy brought it into a greater but variable usage by the neurologists of the era. As a result of a debate about its dangers, in the 1890s the first legal control appeared in the Americas at Trinidad, where the importation of Indian workers created an acute problem (35). The era of cannabis as a drug for psychiatric treatment had essentially ended. Although it would come under the labeling controls of the Pure Food and Drug Act of 1906, major concern with its use would reappear in the 1930s and 1960s—this time, however, in the context of its social use and dangers (36).

PROBLEMS IN ADMINISTRATION AND REACTION

These problems fall into two categories: the reliability of the preparation and the reactions of the recipient. Practically all of the medical writers cited here mentioned the problem of obtaining any sort of consistent strength of preparation. In addition to the uncertainty of the dosage, the writers commented on various idiosyn-

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DISCUSSION

ILZAVEITH, Ph.D. (San Francisco, Calif.)—In some rural sections of Central Europe—especially on the upper Rhine—it was customary among the people to soothe their wailing infants with pacifiers—made of little linen bags filled with poppy seeds and slivers of poppy capsules. The ripe capsule of the poppy produces the sap from which opium is derived, hence the little cloth bags on which the babies sucked so contentedly emitted the most powerful tranquilizer or, rather, narcotic then known to mankind.

Whether symptoms of intoxication or withdrawal in the infants so pacified ever came about has remained unknown, because scarcely anyone among those peasant farmers would have been sufficiently astute to notice such symptoms, and the children did not receive much medical or scientific attention. Just as it has become evident from Dr. Carlson's excellent paper, this *schnuller* (pacifier) stork; shows that few persons in earlier centuries ever noticed addictive powers or other adverse effects, be they of opium, *cannabis indica*, or any other drugs that were derived from vegetable alkaloids. After all, everyone knew *vis medicatrix naturae*, the healing power of nature that had been so highly praised by Hippocrates; hence, how could any plant brought forth by nature have any adverse effect beyond the positive alleviation of pain, relaxation, and healthful sleep?

This casualness toward the use of narcotics may be compared with the increasing tolerance in earlier centuries of the consumption of alcoholic beverages, which extended to the use of *spiritus frumenti* for medicinal purposes.

Its well-known properties as a transient pain killer, narcotic, relaxant, and sedative secured alcohol a place in the *materia medica* of times past. (Yet even in the last century it had become evident that this so-called drug could not honestly claim a place in the pharmacological armamentarium.) It is therefore scarcely surprising that when *cannabis indica* was introduced it was rapidly entered as a really versatile drug in the *materia medica* of the Western world. In the vernacular it gained fame and notoriety as Indian hemp, hashish, and marijuana. A drug that is now listed in the latest edition of *Stedman's Medical Dictionary* as a "narcotic, sedative, analgesic, and aphrodisiac" could hardly fail to elicit a most favorable reception by doctors and patients alike if it had possessed only one of the aforementioned properties.

Less well known, perhaps, than these presumed benefits to suffering humanity is the violent past *cannabis indica* can look back upon. It is a past that appears to be more consonant with modern big-city violence than with the analgesic effect of a pharmaceutical substance. This period of the drug's role in criminal activities dates far back before the time covered by Dr. Carlson's paper. It was in the Middle Ages, when the crusaders returned from Syria with the news of a Muslim sect of terrorists, the Nizaris, who employed assassins whose motives were fanaticism or greed to murder prominent figures by treachery. The name of these fanatics was reported to be *hashishin*, from their alleged practice of taking hashish (*cannabis indica*) to induce ecstatic visions before setting out to face possible martyrdom. From this word *hashishin* the term "assassin" is derived: only more recently did the word "assassin" acquire the connotation of a "killer by surprise" or a hired or appointed murderer (1-3).

Evidently this semantic aspect in the history of *cannabis indica* slipped by the awareness of the 19th-century physicians of Dr. Carlson's study, who continued to consider hashish an effective sedative and analgesic for their pain-ridden patients. This apparent absence of apprehension on the part of the doctors seems to have communicated itself to their patients, who, strangely enough, neither became addicted nor suffered from unexpected side effects.

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