

# The Use of Cobra Venom in the Relief of Pain

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IN 1929, a Cuban leper was bitten by a poisonous spider. This severe pain ceased. Following this Calmette along with two French physicians began a study of the effect of venom on pain, using Cobra venom because of its richness in neurotoxins. This work was confirmed and accepted in Europe but it was not until 1935 that it appeared in American literature, when Macht reported a series of 200 cases of severe pain treated with this drug.

Macht imported Cobra venom in the form of dried scabs, the active principle of which, though its chemical nature is in doubt, seems to be a neurotoxin. Although a large dose of Cobra venom produces a local anaesthesia, due to a protoplasmic poisoning, minute therapeutic doses seem to be a cause of central analgesia, especially in the pain areas of the cerebrum. This action may be likened to that of morphine. However, there is a marked difference in the time element, venom's action being very much slower, requiring a saturation period. Daily injection of venom for at least 2 to 4 days are needed to get the required effect. Some patients haven't obtained complete relief until 2 to 3 weeks after injections were started. The analgesia persists from 2 to 4 days. Thus a maintenance dose is required. Clinically there is a diminution in pain threshold, an anti-convalescent property, and a distinct improvement in the psychological outlook of the patient. There has been no evidence of addiction or increased tolerance to the drug.

Cobra venom is distributed in 1 cc. glass ampules, each cc. containing 5 mouse units, a mouse unit being the quantity of cobra venom required to kill a 22 gm. white mouse eighteen hours after intraperitoneal injection. Therapeutically the drug is given intra-muscularly, in order to avoid local reactions. According to the severity of the case the initial dose may vary from 1 to 3 cc. This dose is continued until relief is obtained, usually from four to six days. Then the dose is lowered to the maintenance level, which will vary. The usual maintenance dose being 1 cc. every day or every other day.

There were 17 cases treated in this series; 14 with carcinoma and 3 with severe interstitial cystitis. It was seen that:

46% of the patients were completely relieved of pain.

88% of the patients were relieved of half or more of their pain.

Some of these patients were able to return to their work. The advantage of Cobra venom is that it doesn't require hospitalization, it can be self-administered, its cost is not prohibitive and there is no addiction.

Table No. 1. Cases, Results and Maintenance Dose.

Case No.	Diagnosis.	Estimated immediate relief %	Estimated continued relief %	Maintenance dose.
1.	Ureteral spasm, chronic kidney infection. Co. of cervix.....	100	100	1 every 2 days.
2.	Interstitial cystitis .....	75	60	1 every 2 days.
3.	Interstitial cystitis .....	80	60	1 every 2 days.
4.	Ovarian carcinomatosis .....	95	95	1 every 2 days.
5.	Carcinoma of cervix (Class D)...	40-50	40-50	1 every 2 days.
6.	Carcinoma of cervix (Class D)...	50	50	1 daily.
7.	Carcinoma of ovary .....	30	30	1 daily.
8.	Interstitial cystitis .....	100	100	1 every 3 days.
9.	Carcinoma of bladder .....	100	100	1 every 2 days.
10.	Carcinoma of vulva .....	100	100	1 every 2 days.
11.	Carcinoma of cervix (Class D)...	100	100	1 every 2 days.
12.	Carcinoma of cervix (Class D)...	75	75-100	3 daily
13.	Carcinoma of cervix (Class D)...	75	0	2 daily
14.	Carcinoma of breast .....	100	100	2 daily
15.	Carcinoma of breast .....	50	50	1 daily.
16.	Carcinoma of bladder .....	100	100	1 every 2 days.
17.	Carcinoma of liver .....	80	80	1 daily.

Table No. 2. Summary of Results

Percentage of Relief	No. of Cases	Percent
95-100	8	46
75-95	4	24
50-75	3	18
0-50	2	12

Other investigators have used this Cobra venom in the treatment of pain due to chronic arthritis, acute Parkinsonism, arteriosclerotic gangrene, chronic cystitis, and Pic Douloureux.

(Condensed from New England Medical Journal).

Our profession is not trade but an art; trafficking in suffering is a humiliation.—*Axel Munthe.*