

KETAMINE ABREACTION - TWO CASE REPORTS

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Ketamine is a rapid acting parentally administered non barbiturate anaesthetic agent with minimum cardio respiratory depressant effect as compared to others (Paul et al 1982). It is in clinical use for more than ten years and used safely in aged and critically ill patients (Lorhan & Limppman 1971, Barson and Aren 1974). In sub-anaesthetic doses it has been safely used to produce obstetrical analgesia (Janeczko et al 1974). But the unpremedicated patients experience a dream like state. Since, it can be administered intramuscularly and is safer than thiopentone, we thought of using Ketamine as an alternative to thiopentone for narcoanalysis. We report in this paper our findings of abreaction effect of Ketamine on two cases.

Material and Method

Two patients in whom after detailed psychiatric work up narcoanalysis was indicated for diagnostic and/or therapeutic purpose and who were scheduled for pentothal interview and found volunteer were taken for Ketamine abreaction study.

The detailed physical examination and routine investigations were carried out to rule out any illness where Ketamine is contraindicated (Paul et al 1962). Patients were explained the nature of the abreaction procedure and their written consent for the use of ketamine was taken. It was decided to use much smaller dose than required for surgical anaesthesia. Hence, dose was fixed at 1 mgm/kg body weight and was administered deep intramuscularly. Observations

regarding altered state of consciousness, emotional outburst, motor behaviour and verbal communications, its manner and contents were made. Independent recording of pulse, blood pressure and respiration with any other untoward symptom was also made. Normal cautions to maintain rapport and to achieve good abreaction while performing narcoanalysis were observed.

Observations and Findings

Table 1

	Age	Sex	Diagnosis	Body Wt	BP
Case No. 1	21	M	Erectile (Impotency)	52 Kgs	112/76
Case No. 2	28	M	Ejaculatory (Impotency)	61 Kgs	120/86

Case No. 1

Between 15 to 20 minutes he became more communicative and talked without inhibition. By 30 minutes he went into emotional outbursts. He was excited, revealed the conflicts and facts of his past life which he had vehemently denied in conscious face to face interview. During emotional outburst he cried and had guilt feelings. By the end of one hour he was more amenable to suggestions regarding his recovery. He remained drowsy and went to sleep during next one hour. The highest BP recovered was after 30 minutes of injection, it was higher by 40 mm systolic and 10 mm diastolic and returned to normal by the end of one hour. Pulse increased up to 100/min. It was regular. No significant change in respiration found. He had mild feeling of nausea for two hours.

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Case No. 2

This patient was less excited and gradually became drowsy after 8 mts. After about 12 minutes started answering to the queries which were made to keep the conversation going on. By 20 minutes he was maintaining the flow of his thoughts by himself and spoke of his experiences. Systolic BP recorded in this case was 30 m.m. higher from his base line, diastolic rose by 8 to 10 mm only. On recovery he also felt nausea which subsided after 1 to 2 hour.

Follow up over 4 weeks of indoor observation did not reveal any deterioration in their behaviour or mental status.

Discussion

Ketamine has been used as a general anaesthetic, now more than a decade for various purposes and has wide clinical application (Paul et al 1982). It does not produce respiratory depression (Paul et al 1982) as compared to Pentothal, which is required to be given drop by drop I.V. in the same concentration as used for surgical anaesthesia (Arieti 1975). The safety gap between the therapeutic and the soporific effect of thiopentone sodium used in pentothal interview is much narrower. In absence of sodium amytal and methidrine, one is only left with pentothal for narcoanalysis which has an established value in Psychiatry (Sargent and Slater 1963). In our experience Ketamine compared well if not better to the results achieved in other cases during pentothal interview. Except the rise in systolic blood pressure and feeling of nausea there were no untoward side effects. These side effects were short lived and subsided

within an hour or two. Most striking fact came out in this study is the effectiveness of Ketamine as an abreactant in a much smaller dose. The dose for surgical anaesthesia by intramuscular route is between 6.5 to 13 mgm/Kg body weight. Whereas we have used for abreaction only 1 mgm/Kg body wt. It needs further studies to establish its usefulness in day to day psychiatric practice as an abreactant.

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References

- AREITI, S. (1975), American Hand book of Psychiatry Second edition Vol Five 514-525. Basic books New York.
- BARSON, P., ARENS, J. F. (1974), Ketamine as induction anaesthetic for poor risk patients. *South Medical Journal*, 67, 1398-1402.
- JANECKO, G. F., EI - ETR, A. A., YOUNES, S. (1974), Low dose - Ketamine anaesthesia for obstetrical delivery, *Anesthesia Analogue*, (Cleve) 53 : 828 - 831.
- LORHAN, P. H., LIPPMAN, M. (1971), A clinical appraisal of the use of Ketamine hydrochloride in the aged. *Anesthesia Analogue*, (Cleve) 50 : 448-451.
- PAUL, P. W., WALTER, L. W. ANTHONY, J. T. (1982), Ketamine its pharmacology and therapeutic uses, *Anaesthesiology*, 56, 2, 119-136.
- SARGEANT, W. & SLATER, E. (1963), An introduction to physical methods of treatment in Psychiatry. Edinburg Livingston.