

Nishkarsh Gupta¹, Rakesh Garg^{1*} and Anju Gupta²

¹Assistant Professor, Department of Anaesthesiology, Pain and Palliative Care, Dr BRAIRCH, AIIMS, New Delhi, India

²Assistant Professor, Department of Anaesthesiology, Delhi State Cancer Institute, Delhi, India

Dates: Received: 04 October, 2014; Accepted: 13 October, 2014; Published: 15 October, 2014

***Corresponding author:** Rakesh Garg, Room No. 139, 1st floor, Department of Anaesthesiology, Pain and Palliative Care, Dr BRAIRCH, All India Institute of Medical Sciences, Ansari Nagar, New Delhi-110029, India, Tel: +91 9810394950; +91 9868398335; E mail: drrgarg@hotmail.com

www.peertechz.com

ISSN: 2455-3484

Editorial

Addiction in Anaesthesiologists and its Implications on Anaesthesia

The commonly abused drugs include opioids (morphine, fentanyl and sufentanil), propofol, ketamine, sodium thiopental, lidocaine, nitrous oxide, and the potent volatile anaesthetics [9].

Opioids are implicated in 2/3rd of all the cases followed by anesthesia induction agents (20%) [10]. Nitrous oxide has been often misused by professionals, but it is gradually been withdrawn from the hospital use due to its side effects. In near future its abuse potential among anaesthesiologists may decrease [11,12]. The abuse of volatile anaesthetics among anaesthesiologists is difficult to detect and such individuals are addicted to more than one agents [13]. The misuse of ketamine among anaesthesiologists is increasingly being reported [14].

There is a higher incidence of death among substance-abusing anaesthesiologists due to the high potency and low therapeutic windows of drugs available for abuse to them like opioids, propofol, and volatile anesthetics [15,16].

Impaired anaesthesiologist may be difficult to identify because they believe they are immune to developing a substance use disorder, are good at hiding signs and symptoms and tend to self diagnose and treat themselves without seeking professional help. Physical, emotional and behavioural alterations often occur before deterioration in clinical performance [17,18]. The change in behaviour like absenteeism from work, arriving late consistently, missing appointments with patients and conflicts with colleagues should raise the suspicion of a possible substance use disorder. Physical symptoms may include changes in sleeping and eating patterns, changes in personal hygiene, signs of physical deterioration, mood swings, personality changes and social and professional isolation [19,20].

Addiction to drugs impairs the health care professional and they may not be able to practise their profession according to acceptable standards. This can put the life of the patients in danger and affect their postoperative outcomes. Moreover an anaesthesiologist working under the influence of drugs increases the professional liability for himself and his group in case of lawsuit.

There are limited reports in literature suggesting any evidence of patient harm or claims arising from it due to substance abuse among anaesthesiologists [21,22].

A number of countries have developed facilities to take care of addicted physicians. An anaesthesiologist addicted to drugs should be immediately referred to an addiction psychiatrist for management. Depending on the drug abused and severity their treatment modality may vary from intensive monitoring to residential treatment. The treatment generally includes detoxification, frequent testing for drug levels in body (urine, hair), psychotherapy and help from

Editorial

The problem of addiction and substance abuse among physicians has been reported as early as 1869 [1]. But, medical community is generally reluctant to accept and report the problem of addiction among health care professionals. Anaesthesiologist by virtue of their work profile and easy accessibility of potentially addicting drugs are at an increased risk of drug addiction. The incidence of abuse is estimated to be around 1% in faculty members and 1.6% of residents in training programs [2]. As high as 1/4th of the medical professionals reported for abuse are anaesthesiologists.

A number of theories are suggested to explain an increased incidence of drug addiction in anaesthesiologist as compared to other professionals. These include easy availability of drugs, stressful environment, the nature of their job along with family tendency and genetic predisposition [3,4]. The anaesthesiologist is involved in around-the-clock care to a variety of patients in giving perioperative care which requires collection and evaluation of data, development and implementation of strategies to maintain the desired safe patient status. These demands make the humans responsible to provide safe operations, stretch and strain their physiological system to the limits [5]. They are often faced with physical stress (confined space, extreme of temperature), psychological stress (relationship with surgeons, fear of complications and death of patient), mental stress (difficult patients due associated comorbidities or complex surgical intervention) and physiological stress (unwell resulting in the body using more energy fighting the illness and hence less energy to perform vital tasks, not having proper meals also result in not having enough energy and induces symptoms like headache and shaking, lack of sleep) [6-8].

Despite working 24/7/365 days in the operation theatre and intensive care unit, the patients hardly know about anaesthesiologists and process of anaesthesia. As result they feel burnout, emotional exhaustion, depersonalization, emotional instability, ineffectiveness, unhappiness and dissatisfaction at work. This burn out syndrome may lead to marital problems, emotional disorders, decreased empathy and psychological withdrawal from work [7,8]. In addition to above easy availability of drugs to anaesthesiologist makes them prone to substance abuse.

support groups [3]. After reforming these anaesthesiologist need to be monitored for absenteeism and their professional behaviour should be observed. Whether these personnel should be allowed to return to active work is debatable. Recent literature suggests a graded reintroduction of the person into active work after approval from the treating psychiatrist should be tried [23].

Anaesthesiologists with baseline psychiatric disorder with opioid dependence and familial history have an increased risk of relapse following reforming. Relapse generally occurs in early period and can be avoided by delayed by delaying the re-induction of such professional into practise [24,25].

To reduce the addiction among anesthesiologist, a comprehensive approach is required to improve their overall working condition. We should have strict regulations to limit the number of work hours per week/month. The maximum duty at a stretch should not be more than 12 hours. Incentives like 5 days a week and compulsory paid holidays every 6 months or so should be provided. Stress management workshops should be conducted at regular intervals to help manage stress full lives. All anesthesiologists should undergo a scheduled mental and physical health check up every year to ensure their fitness and detect early signs of illness.

Addiction is an occupational hazard for those involved in the practice of anaesthesiology. It is difficult to identify the affected physicians, so we must screen all the anesthesiologists for their mental health periodically. The impaired physicians should be supported to get treatment, drug tests, counselling and financial support till they are reformed. All the health care facilities should have written policy for prevention and management of abuse among anesthesiologists.

References

1. Paget J (1869) What becomes of medical students? St. Bartholomew's Hospital Report 5: 238–242.
2. Booth JV, Grossman D, Moore J, Lineberger C, Reynolds JD, et al. (2002) Substance abuse among physicians: a survey of academic anaesthesiology programs. *Anesth Analg* 95: 1024–1030.
3. Bryson EO, Silverstein JH (2008) Addiction and substance abuse in anaesthesiology. *Anesthesiology* 109: 905–917.
4. Merlo LJ, Goldberger BA, Kolodner D, Fitzgerald K, Gold MS (2008) Fentanyl and Propofol exposure in the operating room: sensitization hypotheses and further data. *J Addic Dis* 27: 67–76.
5. Feyer AM (2001) Fatigue: time to recognise and deal with an old problem. *British Medical Journal* 322: 808.
6. Ayas NT, Barger LK, Cade BE, Hashimoto DM, Rosner B, et al. (2006) Extended Work Duration and the Risk of Self-reported Percutaneous Injuries in Interns. *Journal of the American Medical Association* 296: 1055–1062.
7. Barger LK, Ayas NT, Cade BE, Cronin JW, Rosner B, et al. (2006) Impact of extended-duration shifts on medical errors, adverse events, and attentional failures. *PLoS Med* 3: e487.
8. Embriaco N, Azoulay E, Barrau K, Kentish N, Pochard F, et al. (2007) High level of burnout in intensivists: prevalence and associated factors. *Am J Respir Crit Care Med*. 175: 686–692.
9. Wischmeyer PE, Johnson BR, Wilson JE, Dingmann C, Bachman HM, et al. (2007) A Survey of Propofol Abuse in Academic Anesthesia Programs. *Anesth Analg* 105: 1066–1071.
10. Fry RA (2005) Substance abuse by anaesthetists in Australia and New Zealand. *Anaesth Intensive care* 33: 248–255.
11. Garland EL, Howard MO, Perron BE (2009) Nitrous oxide inhalation among adolescents: prevalence, correlates, and co-occurrence with volatile solvent inhalation. *J Psychoactive Drugs*; 41: 337–347.
12. Ng J, O'grady G, Pettit T, Frith R (2003) Nitrous oxide use in first year students at Auckland University. *Lancet*. 361: 1349–1350.
13. Wilson JE, Kiselanova N, Stevens Q, Lutz R, Mandler T, et al. (2008) A survey of inhalational anaesthetic abuse in anaesthesia training programmes. *Anaesthesia* 63: 616–620.
14. Moore NN, Bostwick JM (1999) Ketamine dependence in anesthesia providers. *Psychosomatics* 40: 356–359.
15. Wischmeyer PE, Johnson BR, Wilson JE, Dingmann C, Bachman HM, et al. (2007) A survey of propofol abuse in academic anesthesia programs. *Anesth Analg* 105: 1066–1071.
16. Wilson JE, Kiselanova N, Stevens Q, Lutz R, Mandler T, et al. (2008) A survey of inhalational anaesthetic abuse in anaesthesia training programmes. *Anaesthesia* 63: 616–620.
17. Breiner SJ (1979) The impaired physician. *J Med Educ* 54: 673.
18. Vaillant GE, Clark W, Cyrus C, Milofsky ES, Kopp J, et al. (1983) Prospective study of alcoholism treatment: Eightyear follow-up. *Am J Med* 75: 455–463.
19. Talbot GD, Gallegos KV, Angres DH (1998) Impairment and recovery in physicians and other health professionals. In: *Principles of Addiction Medicine*. Second Edition. Graham AW, Schultz TK (Eds). Chevy Chase, MD, American Society of Addiction Medicine 1263–1279.
20. Angres D, Busch K (1989) The chemically dependent physician: Clinical and legal considerations. In: *Legal Implications of Hospital Policies and Procedures*. Miller RD (Ed). San Francisco, Jossey Bass 21–32.
21. Sivarajan M, Posner K, Caplan R, Gild WM, Cheney FW (1994) Substance abuse among anaesthesiologists. *Anesthesiology* 80: 704.
22. Domino KB, Hornbein TF, Polissar NL, Renner G, Johnson J, et al. (2005) Risk factors for relapse in healthcare professionals with substance use disorders. *JAMA*. 293: 1453–1460.
23. Collins GB, McAllister MS, Jensen M, Gooden TA (2005) Chemical dependency treatment outcomes of residents in anaesthesiology: results of a survey. *Anesth Analg* 101: 1457–1462.
24. Paris RT, Canavan DI (1999) Physician substance abuse impairment: anaesthesiologists vs other specialties. *J Addict Dis* 18: 1–7.
25. Bryson EO, Levine A (2008) One approach to the return to residency for anesthesia residents recovering from opioid addiction. *J Clin Anesth* 20: 397–400.