

Catatonia after routine orthopaedic surgery

C Chacko, J Paul, Y Li, S Bhaskaran

Citation

C Chacko, J Paul, Y Li, S Bhaskaran. *Catatonia after routine orthopaedic surgery*. The Internet Journal of Anesthesiology. 2009 Volume 23 Number 1.

Abstract

INTRODUCTION

Delayed recovery after anaesthesia is common and numerous causes have been implicated. These include residual effects of drugs, metabolic disorders, nutritional deficiencies, and rarely neurological insults.

Post-operative catatonia has been reported as an extremely rare cause of delayed recovery from anaesthesia. We report a case of post-operative catatonia following an elective shoulder arthroscopy.

CASE REPORT

A 64 year old female with a history of depression, deliberate self-poisoning and hypertension presented for an elective shoulder arthroscopy. Though extremely anxious, she refused anxiolytic premedication.

Anaesthesia was induced with fentanyl, propofol and maintained with sevoflurane. An interscalene brachial plexus was performed for analgesia. Post-operatively the patient regained consciousness and expelled the laryngeal mask. Minutes later she became unresponsive (Glasgow Coma Scale 3/15). She maintained intact airway reflexes, normal vital signs and temperature. There was no lateralising neurological signs and pupillary reflexes were normal. There was no biochemical derangement and Blood sugar, urea and electrolytes were normal.

The patient remained in this state for 20 minutes. A diagnosis of catatonia was considered and in view of this, 3mg of midazolam was administered intravenously. She continued to be unresponsive for another ten minutes before waking up appropriately. She had no recall of any of the events after the operation. She was monitored for 24 hours on the ward and was discharged home.

DISCUSSION

Catatonia is also classified as psychogenic coma,

dissociative disorder and conversion disorder. Catatonia is identified by the following diagnostic criteria: motor immobility (as evidenced by catalepsy, including waxy flexibility or stupor), excessive motor activity (purposeless, not influenced by external stimuli), extreme negativism (motiveless resistance to all instructions or maintenance of a rigid posture against attempts to be moved) or mutism, peculiarities of voluntary movement (as evidenced by posturing, stereotyped movements, prominent mannerisms, or prominent grimacing) and echolalia or echopraxia. Catatonia can be diagnosed in presence of one of the above features in presence of a general medical condition, or two in presence of schizophrenia and mood disorder. Catatonic stupor alone (unresponsiveness to stimuli) is adequate for the diagnosis of catatonic coma (2). Psychogenic coma, a type of catatonia, is described as a state of unresponsiveness with preservation of protective reflexes which can be induced with extreme mental stress.

A case report of a case of post-operative psychogenic coma showed a response to benzodiazepine (2). 90% of the 11 cases of catatonia reported in a case series were females and most of them had previous psychiatric illness (82%). Most of the cases were managed supportively and three of them responded to benzodiazepines. One patient had significant bradycardia requiring intravenous atropine. In 3 cases there was spontaneous resolution and few cases responded to a variety of stimuli which included airway obstruction, caloric test, ulnar nerve tetany, placebo injection and smelling of ammonia.

The diagnosis is by exclusion and careful history and clinical examination is important. There is no definitive test though classically the eyes face downwards and the presence of protective reflexes can be elicited. Abnormal EEG is described in 43% of cases.

CONCLUSION

Delayed recovery after anaesthesia is common and is rarely caused by a catatonic state. Catatonic state is a rare but treatable cause with very little supporting literature. This case report adds to the existing literature. We recommend that in patients with delayed recovery with preservation of protective reflexes the diagnosis of catatonia should be considered after excluding organic causes

References

1. Malley RA, Frost EA. Differential diagnosis of delayed return to consciousness Middle East Journal of Anaesthesiology 1992,11:331-358
2. Freudenreich O, McEvoy JP, Goff DC, Fricchione GL. Catatonic coma with profound bradycardia. Psychosomatics. 2007 Jan-Feb;48(1):74-8.
3. Downs JW, Young PE, Durning SJ. Psychogenic Coma following Upper Endoscopy: A Case Report and Review of the Literature. Military Medicine May 2008.
4. Maddock H, Carley S, McCluskey A. An unusual case of hysterical post operative coma. Anaesthesia 1994,54(7):717-8
5. Adams AP, Goroszeniuk T. Hysteria:a cause of failure to recover after anaesthesia. Anaesthesia 1991,46(11):932-4.
6. Brasic JR. Catatonia. emedicine.medscape.com/article/1154851-overview 2009.
7. DSM-IV American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. Washington, DC: American Psychiatric Association; 1994.

Author Information

CJ Chacko, CT2 Anaesthesia

Queens Hospital Burton, Burton-on –Trent UK

Jaison T Paul

Speciality Doctor, Queens Hospital Burton, Burton-on –Trent UK

Y.W. Li, ST3

Anaesthesia Stafford General hospital, Stafford, UK.

S. Bhaskaran

Consultant Anaesthetist, Stafford General Hospital, UK