بررسی عوارض بیوهوشی عمومی با ماسک در بیماران تحت عمل جراحی در یک از بیمارستان‌های وابسته به دانشکده علوم پزشکی ایران (۱۳۷۷)

پژوهشگر: حسین الله مهدی پورکارشناس ارشدبهوشی استاداراها: آقای دکتر علی‌قاوی خدایری عضو هیات علمی دانشگاه پزشکی تهران.

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چکیده

ارزیابی بیوهوشی پیدا شده در بیماران دارای عوارض بیوهوشی عمومی با ماسک در بیمارستان تحت عمل جراحی در یک از بیمارستان‌های وابسته به دانشکده علوم پزشکی ایران.

اهداف و پژوهش:

- تغییراتی از مشخصات نمونه‌های پژوهش
- تغییرات در عوارض بیوهوشی عمومی با ماسک در حین بیوهوشی در بیمارستان تحت عمل جراحی در یک از بیمارستان‌های وابسته به دانشگاه علوم پزشکی ایران.
- تغییرات در عوارض بیوهوشی عمومی با ماسک در بیمارستان تحت عمل جراحی در یک از بیمارستان‌های وابسته به دانشگاه علوم پزشکی ایران.
- تغییرات در عوارض بیوهوشی عمومی با ماسک در بیمارستان تحت عمل جراحی در یک از بیمارستان‌های وابسته به دانشگاه علوم پزشکی ایران.
- تغییرات در عوارض بیوهوشی عمومی با ماسک در بیمارستان تحت عمل جراحی در یک از بیمارستان‌های وابسته به دانشگاه علوم پزشکی ایران.
- تغییرات در عوارض بیوهوشی عمومی با ماسک در بیمارستان تحت عمل جراحی در یک از بیمارستان‌های وابسته به دانشگاه علوم پزشکی ایران.

پژوهش با تغییراتی از مشخصات نمونه‌های پژوهشی در بیمارستان تحت عمل جراحی در یک از بیمارستان‌های وابسته به دانشگاه علوم پزشکی ایران.

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Investigate the complications of general anaesthesia with mask in patients under surgery

(by: Habibollah Mehdi poor)

This research project is a field study to investigate the complications of general anaesthesia with mask in patients under surgery in a hospital affiliated to University of Medical Sciences Iran. The specific goals of this study are as follows:

- To determine some of the characters of patients under study.
- To determine the complications of general anesthesia with mask during surgery in one of the hospitals attached to the University of Medical Sciences Iran.
- To determine the complications of general anesthesia with mask during post operative recovery in patients who have undergone surgery in a hospital of the University of Medical Sciences Iran.
- To attribute the relationship between some of the characters of patients under this study with complications of general anesthesia with mask during anesthesia and post operative recovery in patient who have undergone surgery in a hospital of the University of Medical Sciences Iran.

To obtained the objectives of this study, we have put forth some questions - namely:
1- What is the specifications of some of the examples undertaken in this study.

2- What are the complications of anesthesia with mask under general anesthesia in patients during surgery.

3- What are the complications of general anesthesia with mask in patient under study during post operative recovery.

4- What correlation exist between some of the specifications of patients under study with complications of general anesthesia with mask under surgery during anesthesia and post operative recovery.

The interpretation and conclusions of this project are presented in 32 tables. Tables 1 to 10 relate to specifications of individual patients under study. Tables 11-12 relate to complications of anesthesia with mask during general anesthesia. Tables 13-14 show determination of s. complications of general anesthesia with mask during post operative recovery. Tables 15-32.

It explain correlation between complication of general anesthesia with mask during anesthesia and recovery period in the cases under study. Evaluation of relationship between variations using the (Friedmans test.

This test shows a meaningful relationship between complication of general anesthesia with mask and age, duration of anesthesia and types of drugs given during the anesthesia and also shows meaningful relationship between complication of
recovery period and age, types of drugs used during the anesthesia and duration of anesthesia.

Findings of this research include complications during general anesthesia with mask and during the recovery period under general anesthesia with mask in patients undergoing surgery and are under follows:

A Complication during anesthesia:

(1) Complications of respiratory system: involved 80-95% cases which included:
   (a) Apnea
   (b) Hypoventilation
   (c) Airway obstruction

(2) Cardio Vascular complications: involved in 28.6% cases: ..
   (a) Tachycardia
   (b) Bradycardia
   (c) Hypertension

(3) Complications of gastrointestinal tract: involved in 11.11% cases:
   (A) Gastro distention
   .Its (8) Nausea

The most common complication observed in this study during general anesthesia with mask was apnea with incidence of 49.2% and rest of the physiologic systems of body were not affected.
Finally on the basis of the Findings obtained in this study, we recommend to anesthesia team and recovery room personnel, the following:

- Complete and listed knowledge of the drugs used during anesthesia, their accurate doses, clinico-pharmachological reaction and the duration of time action, because the use of different medications during general anesthesia and recovery period.

Total attention for assisted ventilation and expertise of the anesthetist, because assisted ventilation has a direct relationship with complications of gastro-distention.

- Emphasis on knowledge of the type of surgery to be undertaken and sex of patient.

- Availability of an expert assistant to take critical care of patient during the anaesthesia and recovery period to prevent and treat unexpected and dangerous complications.

- Proper education for personnel of anaesthesia team and recovery room, importance of above mentioned lines will be enlightened when it is clear in this study that these complication; namely airway obstruction and respiratory failure during recovery period were not observed, where as literature reveals them to be the most common complications during recovery period. (Gauhar Khai, 1366, page. 320).

The researcher observed during the time of the study that following:
Considerations can be of great help in the induction as well as management of anaesthesia and recovery period:

- Latest instruments and operating room and recovery room and anaesthesia technology.
- Cooperation between technician and anaesthetist during anaesthesia and recovery.
- Complete investigation and examination of patient before anaesthesia.
- Selection of proper type of anaesthesia in relation to the needs of the patient – inconsultation with the surgeon and anaesthetist.

The researcher, in view of the following materials obtained during present study suggest future researchers to work on them:

- Investigations of the causes of apnea during the general anaesthesia with mask to prevent the risk factors which may cause apnea during general anaesthesia with mask.
- Investigate the risk factors which may cause hypoventilation during general anaesthesia with mask and study ways to prevent them.
- Investigate the risk factors which may cause airway obstruction during general anaesthesia with mask and study the ways for their prevention.

I - Investigate the risk factors for tachycardia during general anaesthesia with mask and the ways for their prevention.

- Investigate the risk factors for bradycardia during general anaesthesia with mask and the ways for their prevention.
-Investigate the risk factors for hypertension during general anaesthesia with mask and study the ways for their prevention.

-Investigate the risk factors for nausea and vomiting during general anaesthesia and recovery period and the ways for their prevention.

-Investigate the risk factors involved in dilatation of stomach during general anaesthesia with mask and the ways for their prevention.

-Investigate the apparent causes -risk factors causing pain during recovery period and the ways for their prevention.

-Investigate the risk factors causing restlessness and agitation during recovery period and the ways as for their prevention.

-Investigate the causes of delayed consciousness during recovery period and study the means and ways to prevent this.

-Investigate causes for shivering during recovery period and the ways to prevent this.

Since one of the limitations of this study was that the researcher conducted the research as the patient with AS.A 1 so we suggest that the above material be conducted with higher risk patient (ASA 2 and above). Also in this study induction was done with drugs like: Thippenton, Halothane and Nitrous Oxide. The researcher suggests that research should be conducted using other drugs for induction and management since this research was conducted on the Complications
of general anaesthesia with mask, but a large number of patients are anaesthetised with different techniques, namely:

1) Regional anaesthesia

2) General anaesthesia with endotracheal tube.

The researcher recommends the complications during general anaesthesia and during recovery period be studied.