

" Esophagogastroduodenoscopy": Impact of a designed nursing teaching protocol on nurse's performance and patient's outcome

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Abstract: The aim of this study was to assess knowledge and practice of nursing staff working in the GI endoscopy center, to determine the nursing intervention for patient undergoing upper endoscopy, then to design a teaching protocol, lastly to evaluate the effect of implementing the protocol on nurse's knowledge, practices. **Subjects and methods:** Quasi-experimental research design was conducted to meet the aim of the study; the sample included all convenient nursing staff working with patient undergoing upper endoscopy (30 nurses) and 60 adult patients. This study conducted at GI endoscopy center at Assiut University Hospital. Four tools used for collecting data in the study. Tool one is a pre/post nurses' performance assessment sheet. Tool two destined teaching protocol. Tool three is a patient's nursing need assessment sheet. Tool four is a patient evaluation sheet. **Results** show a good improvement in the knowledge & practice scores after implementing protocol. A positive correlation between nurse's knowledge and practice scores after implementing protocol. **Conclusion** of this study illustrated that the implementing of the designed nursing protocol on nurse's knowledge and practice regarding upper endoscopy patients shows a significant improvement in nurses' performance's. Also Improving nurses' knowledge and practice can favorable affect the incidence of patient complication. **The study recommended** that continued nursing education and in-service training programs in the endoscopic gastroenterology center should be organized regularly and the nurses should use pre, post nursing teaching guidelines according to protocol for caring with patient undergoing upper GI endoscopy.

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1. Introduction:

Esophagogastroduodenoscopy (EGD) it is a diagnostic and therapeutic procedure that provide good view of the mucosal surfaces of the upper gastrointestinal tract. It is an integral tool in the evaluation and management of many gastrointestinal and hepatobiliary conditions (**Vergis, et al., 2007**).

The diagnostic indications for EGD are undiagnosed anemia, upper gastrointestinal bleeding as evidenced by hematemesis or melena. Also therapeutic treatment include; (banding/sclerotherapy) of esophageal varices, cutting off of larger pieces of tissue with a snare device. (**Poley, 2004, Moreno,2008**).

Nursing care for patient undergoing upper endoscopy; the nurses should be informed the patient about the procedure, take a formal consent, any preparation pre and post-procedure. Also the nurse makes sure from patient fasting at least for 6 hours' before procedure. Help the patient to remove of the dentures prior to oral insertion of the scope. And the

potential discomfort after endoscopy procedure (**Peter et al., 2008**).

Post-procedural nursing intervention including assessment of mouth or throat or abdominal pain, bleeding from rectum, And assess the level of consciousness, gag reflex return, measuring vital signs, monitoring the patient in the recovery room for 1-2 hours until the effects of the sedatives have worn off, recognize early signs of possible complications, notice symptoms of difficulty swallowing, worsening throat pain, chest pain, fever and chills (**Roberta et al., 2007**).

The nurse endoscopist should be offer a holistic package of care to patients undergoing GI endoscopy, encompassing the psychological, physiological and sociological needs of the patient. Also the nurse already has the skills and knowledge to assess the needs of each individual attending for endoscopy from admission to discharge. She provides appropriate care before, during and after the procedure, gives advice on admission and discharge, ensures safe delivery of endoscopic equipment and

has access to relevant members of the multidisciplinary team (**Pauline Matthews, 2001**).

Also the nurse has to teach some important points for the patient and family members for manage GIT disease successfully after endoscopy, the patient is instructed about the factors that will help or aggravate the condition. The nurse reviews the information about medication to be taken at home and instruct him to avoid certain medications and foods that increased symptoms (**Cotton and William, 2003**).

It is important to counsel the patient about the dietary and other lifestyle measures. The nurse will review with the patient and family the signs and symptoms of complications to be reported. The nurse should reinforce the importance of follow-up care after upper GIT endoscopy (**Annette and Jean, 2007**).

In order for the nurse facilitate teaching programs for upper GIT diseases and disorder post diagnosis with endoscopy, she first requires appropriate knowledge, skills and experience about various types of upper GIT diseases, methods of assessment, prevention and treatment. Once attained by means of specific learning, the nurse is ready to take on the important roles of educator and supporter to the patient. Nursing instructors are essential in identifying; minimizing, preventing complications and determining the predisposing factors that will help or aggravate the patient condition (**Bertleff et al., 2009**).

2. Subjects and methods:

Study design:

Quasi experimental research design was utilized to fulfill the aims of this study.

Study population:

The study included a convenience sample of all staff nurses working in Endoscopic gastroenterology center in addition to the nurses of El-Raghy hospital, the total number are (30). In addition to 60 adult patients (male and female) who undergoing upper gastrointestinal endoscopy, their ages ranged from 18 to 60 years. This sample was divided into two groups of patients:

Group (1): 30 adult patients before the implementation of a designed nursing teaching protocol as a control group.

Group (2): 30 adult patients post the implementation of a designed nursing teaching protocol as study group.

Setting:

The study was conducted at the Endoscopic Gastroenterology Center at Assiut University Hospital.

Exclusive criteria:

- Unconscious patients.
- Patients on mechanical ventilation.
- End stage liver cirrhosis.
- Patients with speech disorder.
- Chronic gastrointestinal complications

Tools:

Tool 1: Pre/post test nurses' performance assessment sheet: This tool consists of three parts:

Part 1: Sociodemographic data for nurses: to assess the socio-demographic characteristics of the nurses (e.g. age, sex, marital status, qualification, years of experience) it includes 8 items.

Part 2: Nurses knowledge assessment: to assess nurse's knowledge about care of patient undergoing upper endoscopy it consisted of 18 items. Scoring system: each right answer was given one score. The total scores were 48. Those who obtained less than (60%) were considered having unsatisfactory level. Above (60) were considered having satisfactory level.

Part 3: An observational checklist for the nurses:

- To assess the nursing practices and intervention for patient undergoing upper gastrointestinal endoscopy it includes general and specific nursing observation checklist consisted of 67items.

Scoring system: each right answer was given one score. The total scores were 52. Those who obtained less than (60%) were considered having unsatisfactory level of practice. Above (60) were considered having satisfactory level.

Tool 2: Patient's nursing need assessment sheet:

This structured questionnaire interview sheet for patient includes

62 items and covers 2 parts as the following:-

Part 1: Sociodemographic data: It includes 19 items.

Part 2: Pre – Post patient's assessment sheet for upper endoscopy. This part includes 42 items including the following content:

A: Assess of physical needs for patient undergoing upper endoscopy. It includes 20 items

B: Assess of psychological needs for patient undergoing upper endoscopy. It includes 9 items.

C: Assess of patient knowledge about upper endoscopy. It includes 12 items

Tool 3: Designed teaching nursing protocol:

The nursing designed protocol was developed by the researcher based on the needed knowledge and practices that can help nurses in provision of a safe care for patient undergoing upper gastrointestinal endoscopy.

Tool 4: patient evaluation sheet:

It was used to assess patients out come (discomfort & complication that might develop among all patients admitted to upper endoscopy until

patient discharging. The patient evaluation sheet includes 10 items

II- Operational design:

Procedure: the study was carried out on four phases

Phase 1 - Preparatory phase

The researcher developed the proposed teaching protocol after extensive literature review (nursing textbooks, journals, internet resources, etc.) and assessment of nurse knowledge and practice in this regard, and then the final form of the proposed protocol will be checked by a panel of experts. The implementation of the protocol using teaching aids and media (pictures, handouts) according to schedule based on the contents of protocol.

Phase 2- A pilot study:-(exploratory phase)

Carried out in October (2011) on 10% from the studied samples (5 nurses) working with patient undergoing upper endoscopy to evaluate the clarity and applicability of the study tools.

Phase 3 - Implementation phase:-

- Data were collected at Endoscopic Gastroenterology Center and at Assiut University Hospital during the period from 1 /10 /2011 to 1/9/2012. The tools filled through interviewing.

- The purpose of the study was explained to the nurses prior to answering the questions. The study was carried out at morning, and after noon shifts.

IV. Administrative design:

- An official permission to proceed with the proposed study was granted from the head of the Endoscopic gastroenterology center

- Assessment of nurse's knowledge and practice before application of teaching protocol. Using (tool 1)

Also she scheduled with them the teaching sessions for both theory and practice and the nurses were divided into small groups, each group contains 4 to 5 nurses.

- The teaching protocol has been implemented for nurses in terms of sessions and teaching during their official working hours. There were a total of 7 sessions. Number of nurses in each session ranged between 4- 5 nurses. Each nurse obtained a copy of the teaching protocol booklet that included all the training contents Tool (3).

Phase 4: Evaluation phase: -

The last phase of teaching protocol is the evaluation phase. Immediately after protocol implementation the nurses' knowledge and practices has been evaluated by the researcher through filling the tool (1, 2).

Ethical considerations:

Informed consent was obtained from the nurses and patients were informed of the purpose and nature of the study. The investigator emphasized that the

participant is voluntary and confidentiality and anonymity of the subjects will be assured through coding all of data and they were given the right to withdraw from the study at any time.

IV. Statistical design:

Descriptive statistics were calculated (e.g., frequency, percentage, mean and standard deviation). Testing hypotheses were applied to check the significance of differences between achieved levels (scores or grades) before and after the application of the teaching protocol. Correlation coefficient; A probability level of 0.05 was adopted as a level of significance for testing the research hypothesis.

Limitations of the study:

- Number of nurse's staff working with patients in the recovery room post endoscopy procedure was inadequate.

- Difficult in measuring some patient complication post endoscopy for shortens of hospital stay for the patient after the procedure.

- Difficult and lack of fitness investigation as chest x- rays, ECG, investigation pre endoscopy that direct effect in measuring and monitoring patient complication after procedure.

- Some endoscopic complications need months for discovery and cost investigation as infection.

3. Results:

Table (1): Shows the characteristics of the studied nurses, the majority of nurses (66.7%) their age ranged from 20-30 years. All of them were female, (63.3%) of them had diploma of nursing. Also (43.3%) of them had below 5 years of experience. Also the majority of nurses (70%) wear live in urban. As regard to previously of attended in-service training for the study sample, it was found that half of them (50%) were attending training program about gastrointestinal endoscopy for one week with minimal benefits.

Figure (1): Clarifies the baseline mean scores for total and subtotal knowledge are low before the teaching protocol (8.73 ± 1.94 , 7.76 ± 1.61 , 3.76 ± 3.07 respectively). However, an improvement in the mean knowledge scores after the application of the teaching protocol (15.02 ± 1.94 , 13.22 ± 2.34 , 5.85 ± 2.01 respectively).

Table (2): Reveals the different between the level of knowledge of nurses' in pre designed teaching protocol and post designed teaching protocol, There has been an observed unsatisfactory in pre designed nursing protocol and highly satisfactory post designed nursing protocol with highly statistically significant.

Table (3): Demonstrates the different in nurses' level of performance between pre and post designed

teaching protocol. There has highly statistically significant and shows in adequate practice level in pre designed teaching protocol which improved to become satisfactory in post designed teaching protocol.

Table (4): Reveals that there was highly statistically significant relation between nurse's knowledge and their practice post implementing designed nursing protocol $P < 0.001^{***}$.

Table (5): Reveals that there was highly statistically significant relation between nurse's practice level and their training post implementing designed nursing teaching protocol $P < 0.001^{***}$.

Table (6): shows that the majority of the sample (study and control groups) wear female (60.0%) and (56.67%) respectively) their age ranged between 35 to 45 years (36.67% and 43.33%, respectively). Also the majority of both groups were married (90.0% and 83.33%, respectively). As regard occupation, the

majority of patient in study group were not worked (63.33%, 73.33% respectively). As regard level of education the majority of patients in study group were illiterate (63.33%, 73.33% respectively).

According to residence, the majority of both groups were urban (63.33%) and (70.0%) respectively).

Table (7): Shows that, all of the study samples (study and control groups) are complaining from feeling of anxiety before upper GI endoscopy procedure their start complain from these fearing and anxiety related to lack of adequate information about procedure, fear from discomfort pain after procedure, By percentages of (83%, 100% respectively) and (66, 7%, 100% respectively).

Table (8): Shows that all of the study samples (study and control groups) are complaining from difficult in swallowing, chest pain. And sensation of nausea and vomiting and upper abdominal pain as minor discomfort post upper GI endoscopy.

Table (1): Sociodemographic characteristics of the studied nurses (n=30).

Characteristics	No	%
Sex:		
Male	-	00
Female	30	100%
Age:		
>20 years.	3	10.0%
20 – 30 years.	20	66.7%
30-40 years.	6	20%
<40 years.	1	3.3%
Mean \pm SD	24.67 \pm 3.69	
Marital Status:		
Single	15	50.0%
Married	15	50.0%
Qualifications:		
Diploma of nursing 3 years	20	63.3%
Institute of nursing	6	26.7%
Baccalaureate of nursing	4	10.0%
Experience:		
< 5 year.	13	43.3%
5 – 10 year.	9	30.0%
<10 year.	8	26.7%
Mean \pm SD	7.83 \pm 2.51	
Residence		
Urban	21	70%
Rural	9	30%
Take training in specially		
Yes	15	50%
No	15	50%
Duration of training	19	76.0%
-one week	4	16.0%
-one month	2	8.0%
-> one month		
Benefits from training courses:	18	60.0%
• Minimal level	12	40.0%
• Maximum level		

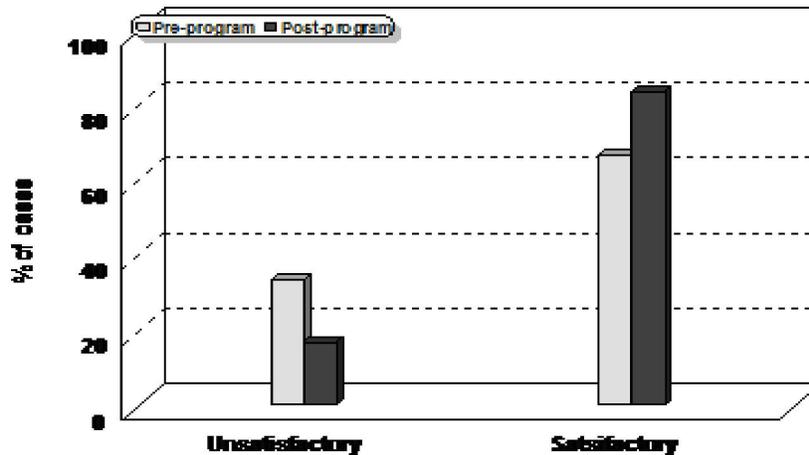


Fig (1): Level of Knowledge obtained by nurses about gastrointestinal endoscopy pre & post designed protocol.

Table (2): Total and subtotal mean knowledge scores obtained by nurses about upper gastrointestinal endoscopy pre & post designed protocol.

Item	Pre protocol	Post protocol	<i>p</i> -value
Total Knowledge score (Maximum score = 48)	19.46 ± 4.48	28.13 ± 2.54	<i>P</i> <0.001**
Knowledge score levels:			<i>P</i> <0.001**
• Unsatisfactory	10 (33.3%)	5(16.67%)	
• Satisfactory	20(66.67%)	25 (83.33%)	

Table (3): Total practice scores obtained by nurses about upper gastrointestinal endoscopy pre & post-designed protocol

Item	Pre protocol	Post protocol	<i>P</i> -value
Total practice score "52" Mean ± SD	25.96±4.29	35.33±3.58	<i>P</i> <0.001**
Practice Level:			<i>P</i> <0.001***
-Inadequate	23 (76.67%)	9(30.0%)	
- Adequate	7 (23.33%)	21(70.0%)	

Table (4): Relation between knowledge & practice post- designed teaching protocol.

practice		<i>P</i> -value	
Item	Inadequate "n=9"		
Knowledge level:			
• Unsatisfied	4 (44.44%)	1 (4.76%)	<i>P</i> <0.001***
• Satisfied	5 (55.55%)	20 (95.23%)	

Table (5): Relation between nurse's practice & their training about gastrointestinal endoscopy post designed teaching protocol.

Training		<i>P</i> -value	
Item	No training "n=5"		
Practice level:			
• Inadequate	3 (60.0%)	2 (8.0%)	<i>P</i> =0.001***
• Adequate	2 (40.0%)	23 (92.0%)	

Table (6): Sociodemographic characteristics of the patients (n=30) Pre & post designed protocol

Item	Study group (n=30)	Control group (n= 30)	P -value
Sex: *male *female	12(40.0%) 18(60.0%)	13(43.3%) 17(56.67%)	P =0.485n.s
Age: 18-25 ys. 25 – 35 ys. 35-45ys. 45-55 >55 ys Mean ± SD	3 (10.0%) 6 (20.0%) 11 (36.67%) 5(16.67%) 5 (16.67%) 44.69±3.69	3(10.0%) 5(16.67%) 13(43.33%) 8 (26.67%) 1(3.33%) 40.34±2.33	P =0.350 n.s
Marital status: Single Married Divorced	3 (10.0%) 27 (90.0%) --	5 (16.67%) 25 (83.33%) --	P =0.294 n.s
Education: Illiterate Read & write Prep. school Secondary school University	19(63.33%) 3(10.0%) -- 9(30.0%) --	18(60.0%) 3(10.0%) -- 7(23.3%) 2(6.7%)	P =0.381 n.s
Job: Not work Work	19(63.33%) 11(36.67%)	22(73.33%) 8(26.67%)	P =0.483n.s
Residence Urban Rural	19(63.33%) 11(10.0%)	21(70.0%) 9(30.0%)	P =0.357n.s

Table (7): Frequency distribution for the psychological needs' for patient under going Upper GIT endoscopy.

Items	Study group (n=30)			Control group (n=30)		
	No	%	P Value	No	%	P Value
Feeling of anxiety before procedure.	30	100%	----	30	100%	-----
Feeling of sever level of anxiety before procedure.	28	93%	** 0.000	21	70 %	** 0.000
Causes of patient fearing and anxiety:						
Lace of adequate information about procedure.	25	83%	0.000	20	66,7%	0.000
Fear from discomfort pain after procedure.	30	100%	----	30	100%	----
• Incompetence sedation.	4	31%	-----	7	----	-----

Table (8): Frequency distribution of discomfort, risks and complications associated with upper GI endoscopy for study patients.

Items	Study		control	
	No	%	No	%
Discomfort and complication post endoscopy				
1. Difficult in swallowing	30	100%	30	100%
2. Chest pain.(minimal)	30	100%	30	100%
3. Bleeding from mouth (recurrent Hematemesis)	3	10 %	4	13,3%
4. Melena	2	6,6%	1	3.3%
5. Sensation of nausea and vomiting.	30	100%	30	100%
6. hiccup	3	10 %	4	13,3%
7. Hypotension.	5	16.6%	3	10 %
8. Hypertension.	1	3.3%	----	---
9. Upper abdominal pain.	30	100%	30	100%
10. Chest pain.(sever)	----	---	---	---
11. Headache.	11	36,6	9	30,6
12. Back pain.	4	13,3	1	3.3

4. Discussion

The present study included 30 nurses; their mean age was (24.67±3.69) years. The majority of the nurses their age ranged from 20-30 years, live in urban, all of them are female, as regard the educational level; the majority of the nurses had diploma of nursing, their experiences below 5 years. And half of them (50%) were attending training program about gastrointestinal endoscopy for one week with minimal benefits.

These are on line with (Yerly, 2011). That state the in service training in nursing is seen as a necessary component to help professional nurse to keep up to date on the most recent developments in nursing and to be able to manage the demands of nursing practice. In addition (Tokars and Ali, 2010) stated that education program and training courses are two components of staff development.

In the present study, the results revealed that the nurses' staff had poor level of knowledge before implementing of the designed teaching protocol. This reflects from the researcher opinion the lack of scientific preparation in this specialized center. This might be related to the fact that providing care to the patient undergoing upper gastrointestinal endoscopy needs special skills, knowledge and nursing specialty or may be attributed to insufficient courses related to endoscopic procedure included in their undergraduate curriculum of nursing education with lack of continuous education and in-service training program.

The results in the present study revealed that, a great improvement in knowledge score levels after implementing of the of the designed teaching protocol this improvement might be related to the fact that about half of nurses were > 30 years this age

might have good readiness for learning new things, they might have more responsibilities toward the young nurses so more capacity of learning.

These results are in agreement with those of Prochaska and Velicer (2012) who noted that nurse's knowledge and practice improved immediately after receiving to the training program. Scores were higher among younger and newly graduated also medial age of staff that has more-experience. Also this agree with the study of (Tina *et al.*, 2001) with revealed that a low level of knowledge in the initial baseline data knowledge assessment for the nurses, which was also reflected in practice of the nurse pre program intervention. And after teaching, a significant improvement was seen in both following knowledge and practice.

After implementation of the teaching protocol, nurses' knowledge score levels regarding caring of patient undergoing upper GIT endoscopy were significantly improved. This improvement might be related to the fact that half of nurses were in young age and single i.e. they might have less responsibilities and more capacity of learning. These results are in agreement with those of (Meyer and Elliott, 2000) who noted that nurse's knowledge scores were higher among younger and newly graduated nurses who are attending a training nursing program.

Morse (2010) added that, will be usefully for the nurses continuing education courses because it helps advance both their knowledge and skills. Continuing education helps that nurses are kept up to date with new knowledge, skills and information.

The present study revealed improvement in the practice score levels obtained by nurses' post designed teaching protocol. This has been concluded

by the presence of significant differences between results of pre and immediate post designed teaching protocol. This finding indicated that skills can be easily improved, especially if linked with their relevant scientific base of knowledge.

Mansour (2012) agree with our study and mentioned that, continuing education is required to maintain competence in practice. Education may take the form of on-the-job training, programs, workshops or conferences that education has a significant impact on the knowledge and competencies of the nurse.

Moreover Abd-Alla (2010) documented that the in service training has a beneficial effect in improving the nurse's knowledge and skills. They also recommended that educational programs should be organized according to the needs of nurses with continuous evaluation.

Also **Friese et al. (2012)** reported that, continuing education must result in practice change to be effective. Integration of knowledge occurs when information is combined with performance.

The results of the present study are disagree with the results of **Endevelt, (2009)** which indicated that the younger nurses are more knowledgeable than old ones. This may be due to the designed teaching protocol make refreshment in their knowledge and skills which gained over the time. Therefore clinical experiences depending on level of study curriculums' in service education this helps the nursing care providers' maintenance and increases their competence in specific areas of practice. It enhances their attitude, skills and knowledge, in relation to specific aspects of their role in the work setting.

Moreover **Abd-Alla (2010)** documented that the in service training has a beneficial effect in improving the nurse's knowledge and skills. They also recommended that educational programs should be organized according to the needs of nurses with continuous evaluation.

Friese et al.(2012) reported that, continuing education must result in practice change to be effective. Integration of knowledge occurs when information is combined with performance.

Also the present study shows that, there was no significant relation between nurse's practice level and their years of experience post implementing designed nursing protocol.

This may be related to the majority of studied nurses weren't properly prepared prior to their working and/or dealing with such patient undergoing upper GI endoscopy and really they got their experience while being there, working and managing the patients in the real life situations.

The result in the present study showed no significant relation between the experiences and level of practice observed during the post protocol

implementation. I could refer that the nurses included in the study were exposed to a training cross' to care for such a group of patient but they have not available resources or may refer to work overload and refer that the nurses included in the study are not a ware of their clinical experience mistakes.

Regarding socio-demographic characteristics, the results of the present study showed that the majority of the sample (study and control groups) wear female their age ranged between 35 to 45 years That results supported by the study of (**Towns, 2004**) which reported that gastrointestinal tract disturbances specially gastric disorder are occurs with the greatest frequency in people between the age of 30 and 55years.

As regard level of education the majority of patients in study group were illiterate. In this regards, **Winslow, (2004)** mentioned that patient with poor reading and writing skills may not understand a health care provider's directions and may lack knowledge of self-care.

In the same time this findings are supported by **Quick (2006):** which demonstrated that patient with low educational levels were more socially isolated and experienced more stress than patient with higher educational levels and this affect negatively on there self-care knowledge.

As regard residence the result of the present study revealed that both groups of patient are the same chance of upper GIT diseases occurrence in the rural and urbane setting. In this contest, **Kennedy et al., (2006)** reported that, rural patient with lowest socioeconomic status have the same chance for risk of gastric diseases as those in a big cities with high socioeconomic status there is increasing evidence to suggest that there no interaction between socioeconomic status in the development risk factors for the upper GIT diseases.

In the present study one patient show obstruction of the stent and displacement after ERCP this result from diseases processes complication. These agree with (**Herbert et al., 2004**) demonstrate that diagnostic endoscopy of the upper gastrointestinal tract is safe, with a complication rate of less than 1 per 5000 cases. Approximately 1 complication occurs for every 1000 EGD procedures. The mortality rate is approximately 0.5-3 deaths for every 10,000 procedures. Cardiopulmonary complications during endoscopy do to vagal- or sympathetic-mediated changes associated with endoscopy that causes simple arrhythmias, such as sinus tachycardia, and transient hypoxia.

Also (**Majeski. And Chien; 2009**). State that perforation related to diagnostic upper GI endoscopy is uncommon with an estimated frequency of 0.03

and mortality of 0.001%, perforation may occur in the pharynx or esophagus.

Also the regard infectious complication there is no cases reported in this study by infection complication post upper gastrointestinal tract endoscopy; in my opinion that this complication needs more of time according to the incubation period of each infectious diseases. Also is very expensive because we need for investigation to exclude the infectious disease before the endoscopy as blood analyses for

HIV and HBV, HCV.

As regard the present study the nurse perform the nursing care for the patient undergoing upper endoscopy(pre, during and after a procedure) and this on line with (Majeski, 2009) that state professional endoscopic nurses should performed the nurse observe the level of conscious until the sedation off. And advise him or her to observe for signs and symptoms of risks associated with upper GI endoscopy include abnormal reaction to sedatives, bleeding from biopsy accidental puncture of the upper GI tract swallowing difficulties, throat, chest, and abdominal pain that worsens, vomiting bloody or very dark stool, fever.

The present study shows that the majority of the samples (study and control groups) are complaining from haematemesis (bleeding from mouth) after endoscopy these related to bad prognoses of diseases processes itself as after sclerotherapy of esophageal varices and improper management of portal hypertension for liver cirrhoses patient.

These results disagree with (Ali, Rasha. (2013) In Assuit university in medical Audit of Upper GIT) that show that the complications present in 8% of the studied groups and the type of the complications were (failure of control of upper GIT bleeding 37.5%, syncope in 37.5%, respiratory arrest 12.5% and myocardial infarction in 12.5%). And haematemesis occurs during the procedure due to failure in the management of the upper GIT bleeding. Also myocardial infarction related to inappropriate selection of the patients and bad preparation before the procedure. And respiratory arrest occurs as a complication of general anesthesia.

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