ORIGINAL ARTICLE

Surgical Audit of patients operated in ENT Mayo Hospital Lahore over a period of one year

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ABSTRACT

Aim: One year surgical audit of procedures done in ENT.II, Mayo Hospital, Lahore
Type of Study: Cross sectional
Duration: One year (1st March 2014 to 28th February 2015)
Study Setting: ENT. Unit - II, Mayo Hospital, Lahore
Inclusion criteria: All the patients who have undergone surgeries or minor procedures in ENT operation theatre whether the procedures were done under general, local anesthesia or without out anesthesia, in emergency or as elective.
Exclusion criteria: Patient who refused treatment.
Method: Data was collected from the primary sources of information i.e., record register present in operation theatre, outdoor Department and Unit-II of ENT department Mayo hospital Lahore. Data was collected from March 2014 to February 2015.
Results: Total 5917 cases done under GA, LA and some procedures without anesthesia which is almost 500 cases per month. Most cases done in the month of August which were 663 (n=5917). Most surgeries under general anesthesia done in the month of September which were 82 (n=5917). Cases under LA and without anesthesia mostly done in the month of August which were 593 (n=5917). Tonsillectomy was the most common surgery which was 187(23.25%) while septoplasty was the second most performed surgery done under GA 126(15.6%). Seven foreign bodies nose were removed under GA which were seven cases, constitute the least performed surgery in one ear (0.87%). Suction clearance was the most common procedure performed without local or general anesthesia which is 1397(27.32%). Foreign body ear removal was the second common procedure done without anesthesia 18. 936(3%). Tracheostomy was the least performed procedure under local anesthesia which was 35(0.68%5).
Conclusion: Surgical audit is best way of record keeping , health planning , measurement of disease burden, health budgeting and disease surveillance .
Keywords: Surgical audit, emergency surgery, elective surgery

INTRODUCTION

Surgical audit is a systematic, critical analysis of the quality of surgical care that is reviewed by peers against explicit criteria or recognized standards, and then used to further inform and improve surgical practice with the ultimate goal of improving the quality of care for patients. The purpose of audit is to examine whether what you think is happening really is, and whether current performance meets existing standards. A surgical audit involves: collection and measurement of clinical activities and outcomes, analysis and comparison using standards, performance indicators and outcome parameters and a peer review process with a feedback mechanism to redress problems[1]. The key feature of audit is that it involves reviewing actual surgical performance, including outcomes. This clinical experience and that of your team is compared with accepted standards of what that performance should be. As such, it should be a stimulus and source of material for learning and quality improvement. The aims of audit are: to identify ways of improving and maintaining the quality of care for patients, to assist in the continuing education of surgeons and to help make the most of resources available for the provision of surgical services. Surgical audit is best way to keep record of surgeries, compare records with previous years and state of the art institute, budget planning, observation of disease trends and proper management of diseases. Surgical audit can help us in changing previous practices in presence of evidence based practice like myringoplasty as day case procedure in UK[2].

Mayo Hospital is the oldest and largest hospital of the country, serving the humanity since 1871. The father of the nation, Quaid-e-Azam Muhammad Ali Jinnah also paid tribute to services rendered by this hospital on his visit to Mayo Hospital dated

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19.03.1940. ENT which is now a part of Head & Neck Surgery, is the most critical area of the gross anatomy that is difficult to comprehend[3]. The boundaries of ENT merges with other specialties such as Neurology, Neurosurgery, Oncologic surgery, Ophthalmology, General surgery, Pediatrics surgery, Plastic and Reconstructive surgery, Respiratory medicine, Chest surgery, Gastroenterology and the new Maxillofacial surgery. ENT Department of Mayo Hospital affiliated with King Edward Medical University which is one of the oldest ENT departments of the subcontinent. It was established in 1912.It has two units. Emergency and elective services are rendered by it. The emergency cover is provided 24/7 and is a major referral from all over Punjab and other provinces. The theater has facilities for microscopic, endoscopic, head and neck procedures in addition to routine conventional ENT procedure.

MATERIAL AND METHOD

This cross sectional study was carried out in the Department of ENT, Mayo Hospital, Lahore for a period of one year from March 1, 2014 to February 28, 2015. Data was collected from the primary sources of information i.e. record register present in operation theatre, outdoor Department and Unit-II of ENT department Mayo hospital Lahore. Data was collected from March 2014 to February 2015. Our unit has three days for emergency, three days for OPD, two days for surgeries while two Sunday emergency days in a month. Data was collected about all major operations performed in one year under general anesthesia and local anesthesia. All the patients who have undergone surgery in ENT operation theatre from 1st march 2014 to February 2015 were included in the study whether these procedures were done under general, local anesthesia or some procedures done even without out anesthesia, in emergency or as elective, while all those patients who refused treatment were excluded.

RESULTS

Total 5917 cases done under GA, LA and some cases without anesthesia which is almost 500 cases per month. Most cases done in the month of August which were 663 (n=5917). Most surgeries under general anesthesia done in the month of September which were 82 (n=5917). Cases under LA and without anesthesia mostly done in the month of August which were 593 (n=5917). In one year audit we found that total 804 surgeries done under general anesthesia. Tonsillectomy was the most common surgery done in ENT unit II, which was 187(23.25%) while septoplasty was the second most performed surgery done under GA 126(15.6%). We operated 40 patients (4.9%) for adenotonsillectomy .Thirteen foreign body ear (1.6%) were attempted first without anesthesia and later removed under GA because of its deep impaction, prolonged history and complex nature. Seven foreign bodies nose were removed under GA which were seven cases, constitute the least performed surgery in one ear (0.87%).

Suction clearance was the most common procedure performed without local or general anesthesia which is 1397(27.32%). Foreign body ear removal was the second common procedure done without anesthesia 936(18.3%).

Presentation of foreign body ear and nose were almost same which is 16% for foreign body nose (n=823). Flexible fiberopticnasopharyngo laryngoscopy was the most common procedure performed under local anesthesia which was 284(5.5%). Tracheostomy was the least performed procedure under local anesthesia which was 35(0.68%)

Table I: Total number of surgeries done under General Anesthesia

Name of procedures	n	%age
Tonsillectomy	187	23.25871
Septoplasty	126	15.67164
MUA	88	10.94527
TransantralEthmoidectomy	61	7.587065
Adenotonsillectomy	40	4.975124
Intranasal Polypectomy	50	6.218905
Mastoid Exploration	45	5.597015
CWL	26	3.233831
Rigid Esophagoscopy	51	6.343284
External Ethmoidectomy	20	2.487562
Myringoplasty	19	2.363184
Rhinoplasty	17	2.114428
Foreign body Ear	13	1.616915
Foreign body Nose	7	0.870647
Direct Laryngoscopy	54	6.716418

Table II: Month wise detail

Month	No. of operation under G/A	No. of operation without G/A	Total
March	67	447	514
April	68	423	491
May	56	419	475
June	69	399	468
July	57	435	492
August	70	593	663
September	82	479	561
October	78	394	472
November	66	406	472
December	66	362	428
January	60	355	415
February	65	401	466

Table III :Total Cases done under Local Anesthesia and without out anesthesia

Procedures performed	n	%age
Suction and clearance	1397	27.32251
Foreign body ear	936	18.30628
Foreign body nose	823	16.09623
Indirect laryngoscopy	484	9.466067
Anterior nasal packing	546	10.67866
Biopsy (Head & neck region)	99	1.936241
Stitching (RTA)	182	3.559554
Tracheostomy	35	0.68453
Examination under microscope (Ear)	216	4.224526
Incision Drainage	111	2.170937
Ffol	284	5.554469

DISCUSSION

In our surgical audit of one year we treated 5917 patients in ENT. Unit II, Mayo Hospital, Lahore .Surgical audit is best practice for health planning and management. ENT departments in other countries consider it as a critical part of ENT practice[4]. Total 5917 cases done under GA, LA and some cases without anesthesia which is roughly 500 cases per month.Most cases done in the month of August which were 663. Most surgeries under general anesthesia done in the month of September which were 82. Cases under LA and without anesthesia mostly done in the month of August which were 593 .

In one year audit we found that total 804 surgeries done under general anesthesia. Tonsillectomy was the most common surgery done in ENT unit II, which was 187(23.25%) while septoplasty was the second most performed surgery done under GA 126(15.6%). Tonsillectomy is one of the most common surgical procedures in the United States, with more than 530000 procedures performed annually in children younger than 15 years[5]. We operated 40 patients (4.9%) for adenotonsillectomy. Tonsillectomy is considered as procedure that lead to reduce economic burden on health system of any country because of less use of antibiotics, less interaction with health facilities and less use of health resources. Tonsillectomy results in significant improvement in quality of life, decreases healthcare utilization, and diminishes the economic burden of chronic tonsillitis in the adult patient population[6]. Thirteen foreign bodies ear (1.6%) were attempted first without anesthesia and later removed under GA because of its deep impact and complex nature. It's been observed, foreign bodies attempted by parents, late presentation or treatment by quakes, led to deep impaction and removal under local anesthesia remained difficult. Seven foreign bodies nose were removed under GA which constitute the least performed surgery in one ear (0.87%). Fifty one (6.3%) rigid esophagoscopies done in one year. Children presented most with coins, adults with bone chips and elderly patients with broken dentures. Mastoid exploration done in 45(5.59%) patients. CSOM is well studied in lower socioeconomic communities[7] and remained a big health issue especially in rural areas of Pakistan. Royal college did a comparative audit on mastoid exploration[8]. Twenty external ethmoidectomies done which again shows high prevalence of invasive fungal infection in our region. Moreover we found the patients always ignoring nasal polyps and present only when they start with proptosis.

Suction clearance was the most common procedure performed without local or general anaesthesia which is 1397(27.32%). Foreign body ear removal was the second common procedure done without anaesthesia 936(18.3%). Common removal methods include use of forceps, water irrigation, and suction catheter.

Presentation of foreign body ear and nose were almost same which is 16% for foreign body nose (n=823). The most common foreign bodies were plastic buttons, plastic toys, and small household items.Foreign body nose and ears found to be health issue in developed countries too[9]. Flexible fiberoptic nasopharyngo- laryngoscopy was the most common procedure performed under local anesthesia which was 284(5.55%).Hoarseness is a big health issue in ENT practice. As our department is well equipped with all facilities for diagnostics workup of dysphonia, our department is one of the biggest referral center for hoarse patients. We published our several audits and research on Flexible fiberoptic Nasopharyngo-laryngoscopy[10]. Tracheostomy was the least performed procedure under local anesthesia which was 35(0.68%).

Our department keeps and presents surgical audits to monitor disease pattern and make plans for its proper disease management[11]. The purpose of surgical audit is to evaluate the performance of our unit from 1st March 2014 to 28th Feb 2015, to know the most frequent procedures carried out in our operation theatres, our current practices and there comparison with other centers and the incidence of ENT related diseases in our local population. This will also guide us in public education, prevention and diagnosis of these diseases.

CONCLUSION

Surgical audit is best way of record keeping, health planning, measurement of disease burden, health budgeting and disease surveillance. Tonsillectomy was most common performed surgery under GA which will reduce economic burden on health

resources and school absenteeism in children. Awareness of the community is needed about CSOM to avoid complications which can lead to high rate of mastoid surgeries and burden on health resources. Sinunasalpolyposis need regular follow ups because high incidence of fungal rhinosinusitis in our region can lead to orbital and intracranial complications. Chronic ear diseases needed examination under microscope (EUM), which helps in proper diagnosis and management of ear diseases. Flexible fiberoptic nasopharyngolaryngoscopy is a new procedure with better sensitivity and specificity. It can be easily performed under local anesthesia. Minor laryngeal pathologies which are often missed by indirect mirror laryngoscopy can be easily diagnosed by FFOL. It helps in early detection of life threatening conditions like CA Larynx.

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