

## XXVII.

### OTOLARYNGOLOGY AT CAMP LEWIS.\*

BY MAJOR ROBERT LEVY, M. C., U. S. A.,

DENVER.

During the first few months at the United States Army Base Hospital at Camp Lewis I served in a subordinate capacity. This gave me an excellent opportunity of observing military practice and contrasting it with that of civil life. The former has much to recommend it, and many of the trying and often trivial annoyances of civil practice are not met with, much to one's relief.

The keynote of military service is accuracy. Doubtless many others were struck with the vast problem the medical department had to contend with in an attempt to systematize with accuracy and uniformity the service of a large number of medical men, some of whom were insufficiently trained. This was especially apparent in the difficulty encountered in recording case histories. It is my firm conviction that in this as well as in all other branches of the medical corps, our final reports and ultimate conclusions are of much less value because of insufficient and inaccurate recording of clinical observations.

Operations.—In order better to control and systematize the question of operations it was found advantageous to adopt the following form, known as "Request for permission to operate." This was made out by the officer recommending the operation:

Date.....19.....

Register No.....

Name and Rank.....

Request permission to operate for.....

.....

---

\*Symposium on Military Service of the members of the American Laryngological Association.

## (Diagnosis)

Indication for operation.....

Quarantine, Ward or Company.....

Evidence of acute inflammation.....

Laboratory Report:

Urine..... (Signed)

Throat Culture:

Admitted to Hospital.....

The laboratory report was initialed by the Ward Surgeon. The "received" stamp was dated and initialed by the chief before the request was sent to the ward; an "approved" stamp was dated and initialed by the chief after all requirements had been complied with, and an "operated" stamp was dated and initialed by the officer operating.

Owing to exposure to contagious diseases incident to recruiting and camp conditions, it frequently happened that soldiers operated for minor ailments were stricken with one of these affections shortly after operation. Care as to quarantine and thorough examination for acute inflammatory manifestations did not always prevent a case of scarlet fever, for example, from occurring in an operated patient to the obvious detriment of the patient as well as to the previously clean ward. In order to avoid this no case was operated upon until after three days of observation in the hospital.

The importance of preliminary urinary examination in all cases, even in those of minor character and requiring only local anesthetic, was illustrated in a serious result following a simple operation, in which it was subsequently determined that the patient was a diabetic.

Variety of Cases Seen.—It is worthy of note that an unusually large variety of diseases of the ear, nose and throat reported at the clinic and hospital for treatment. There was

not the dull monotony one had reason to expect in such a service. Rare affections were occasionally seen, of especial interest was an unusual case of angioma of the uvula, of very large size and extending to the soft palate. A radical operation by Captain C. W. Pierce of my service resulted in complete cure. Othaematomata were commonly seen and an opportunity to try out various methods of treatment was given us. A unique treatment which was here adopted following the suggestions of a Seattle man was the following: The othaematoma was incised and a firm metal or hard rubber tube was inserted; the entire ear was then enveloped in a box of plaster of Paris, the tube remaining exposed. Suction was applied to the tube daily and at the end of two or three weeks the dressing was removed, with most gratifying results.

Tonsillectomy and Adenoidectomy.—As elsewhere, diseases of the tonsils constituted an extremely large portion of our service. The question of tonsillectomy and its complications and the question of the tonsils as foci of infection came in for the usual extensive consideration. The method of operation carried out at Camp Lewis was by dissection and snare; local anesthesia was the rule. Slight differences in technic, both as to operation and anesthesia, were in accordance with each officer's practice. In no instance was local anesthesia followed by serious effects. Post-operative complications were infrequent. In a series of 540 tonsillectomies and 146 adenoidectomies only 31 post-operative complications were reported with sufficient accuracy to warrant consideration. Of these, 23 were post-operative hemorrhage and nine presented some infection; one case having both.

Hemorrhage as a rule was "delayed primary," true secondary hemorrhage being rarely seen. One serious case of secondary hemorrhage occurred following adenoidectomy; bleeding was very profuse, and was only controlled by a post-nasal plug after all other methods had failed.

Infection was manifested by rise of temperature, stiffness of neck, and abscess. There were no fatalities.

Focal Infection.—An attempt was made to arrive at some definite conclusion relative to tonsils and accessory sinuses as foci of infection, particularly as regards arthritis. It must be confessed that the unsatisfactory character of many of the

records was a decided handicap to this study. However a sufficient number of conclusive cases was recorded to make the study worth while. In a series of 200 case of arthritis 50% were believed to have some relation to the tonsils as a focus of infection. A conservative view of this question was always maintained.

An average example is the following:

Diagnosis.—Articular rheumatism. History: Recurrence for past thirteen or fourteen years; in hospital 51 days. After 38 days of general treatment, during which time the patient was on crutches, tonsillectomy was performed. Thirteen days after operation crutches were discarded and patient was sufficiently improved to be discharged.

A review of all cases justified the following conclusions:

1. Tonsillectomy may effect improvement or cure in arthritis.
2. The number of cases cured was few compared to the total number of cases of arthritis treated.
3. The most satisfactory cases were the acute or recent cases, which generally gave a history of sore throat, although this was not invariable.

Meningitis Carriers.—An interesting study of carriers of meningococci was carried out to determine the pathology, if any, that might be found in the nose and nasopharynx. It was an interesting observation that in no case was the meningococcus recovered from the nose or tonsils, but in all instances the habitat of these microorganisms was solely the nasopharynx. The highest average number of days in the hospital occurred in those cases showing adenoids, these being small or of moderate size, although it was worthy of note that 38 per cent of the cases studied presented no lesion in the nasopharynx. These remained in the hospital an average of 45 days as compared with an average of 61 days for those showing some pathology.

Vincent's Angina.—A diagnosis of this disease was frequently based upon laboratory reports, and even though no clinical signs were presented, these cases were isolated. It is believed that this practice was in a large measure unwarranted, for it is a well-known fact that the fusiform bacilli and spirilli may both be recovered in the throat and around the gums of

clinically normal mouths. Sore throats, even of slight degree, showing the presence of these organisms should, however, be considered potentialities for the spread of this infection. No serious cases of Vincent's Angina were observed although many were detained in hospital two weeks or more until negative smears were obtained.

Mastoiditis.—During the early part of the year an epidemic of scarlet fever and measles being prevalent, a large number of ear complications occurred. Of these, although a greater part occurred in the progress of measles, fewer developed mastoiditis than did the scarlet fever cases. The most notable feature of these cases was the rapid and extensive destruction of bone. Dura and lateral sinus were often exposed and perisinus abscesses evacuated. Convalescence was prolonged, secondary suturing being necessary in several instances.

In infectious diseases much can be done to prevent ear complications, and to modify them should they occur. The following prophylactic measures were instituted:

1. Daily survey of all cases of measles and scarlet fever.
2. Careful cleansing of nose and nasopharynx. The establishment of good drainage by reducing the swelling of the nasal mucosa by the use of cocain, adrenalin and argyrol.
3. The patient was instructed as to the proper method of blowing his nose.
4. Prompt myringotomy.
5. Early mastoidectomy.

Influenza and Bronchopneumonia.—The following ear, nose and throat affections were noted:

- Otitis media, suppurative acute.
- Mastoiditis, suppurative acute.
- Otitis media, nonsuppurative acute.
- Epistaxis.
- Rhinitis, acute.
- Sinusitis, acute.
- Pharyngitis, acute.
- Tonsillitis, acute.
- Tonsillitis, follicular acute.
- Tonsillitis, suppurative acute.
- Laryngitis, acute.

The most distinctive feature of these diseases was their

comparatively mild character. It was, however, worthy of note that those cases showing ear, nose and throat complications developed these after admission to the hospital, giving the impression, especially in the more severe cases, that these manifestations occurred as late complications. Many reported for treatment after discharge from the hospital.

Early and free incision of membrane tympani was the rule, and it is firmly believed that rapid convalescence and the comparatively few mastoid complications were the direct result of early myringotomy.

In order early to detect ear complications a daily survey of the influenza wards was carried on with gratifying results. Not only did the special survey officer detect unsuspected cases, but the ward surgeons were on the *qui vive* for their development.

Postmortem study of cases of influenza and bronchopneumonia without mastoid signs was undertaken in twenty instances because it was believed that in certain cases local symptoms were so mild as to be overlooked. In these cases both mastoids were examined. In eight, one or both mastoids showed changes such as congestion, softening, milky or purulent fluid. Cultures of these mastoids showed bacteriological growth in only two, one being *staphylococcus hemolyticus* and the other *pneumococcus*.

Conclusion.—At the United States Base Hospital, Camp Lewis, every opportunity was given for thorough study of every case, original research was encouraged and hearty co-operation of chiefs of every department and that of the commanding officers was the rule.