Dr. RANDALL reported a case having the symptoms of sinus thrombosis, in which there proved to be no involvement of the sinus.

Drs. DENCH and ADAMS briefly replied, the former drawing attention to the use of sterile saline solution by him in irrigation of the sinus.

R. Lake.

(To be continued.)

ABSTRACTS.

DIPHTHERIA, &c.

Benjamin, D.—The Treatment of Diphtheria. "Journ. of the Amer. Med. Assoc.," Oct. 17th, 1896.

In the first part of this paper the treatment of diphtheria by antitoxin is discussed; statistics, most of which have been used, over and over again, by other writers, are quoted, and no very definite opinion as to the value of antitoxin is arrived at.

On the other hand, by the antiseptic treatment of diphtheria, the author has not had a single death to record during more than ten years (100 cases). Membranous croup, however, is classed as a completely separate disease, and is not included in these results. The treatment is very simple, consisting of (1) the internal administration of large doses of tr. ferri. perchlor., and (2) the local application to nose and throat, by means of an atomizer, of a solution containing acid. acet. dil., pot. chlorat., acid. carbol., tr. ferri. chlorid., pulv. alumin., acid. salicyl., and aq. ros. in water.

The statistics of this local antiseptic treatment of diphtheria are striking, if not extensive, viz:—

Benjamin	100 cases		100 recoveries.	
Loeffler	71 ,,		71	,,
Kelchner	75		75	

The more malignant the case, the more brilliant are the results obtained.

A. J. Hutchison.

D'Aguanno, A.—Serotherapy in Diphtheria. "Trans. of the Royal Acad. delle Scienze Med.," 1896.

THE author, in treating of a large series of cases occurring under most variable hygienic conditions, considers serotherapy of unquestionable value in treatment of diphtheria. Accepting the unchanged hygienic conditions of the generality of cases, and the unvaried character of diphtheria epidemics, he demonstrates that the mortality percentage following the old local methods of treatment of 47.7 per cent. has, since the adoption of serotherapy, been reduced to 23.5 per cent. The variation in percentage published by numerous observers is due to the following factors:—

- 1. The period of the disease in which the injection is practised.
- 2. The quantity of the serum injected.
- 3. The local treatment of diphtheria, and its various complications.
- 4. The varying proportions in the statistics of cases of faucial and laryngeal diphtheria.

 [Interpolation of the description o

D'Astros, L.—Intubation in Diphtheria before and since the Employment of Serotherapy. "Marseille Méd.," Oct. 1, 1896.

DIPHTHERIA had constantly been very severe in the hospitals of Marseilles. The rate of mortality was in general eighty-nine per cent. Since the introduction

of serotherapy the rate had fallen. During eighteen months the author has performed one hundred and thirteen intubations for laryngeal croup (non-diphtheritic, fourteen, with five deaths; diphtheritic, ninety-nine, with forty-four deaths). Of the forty-four deaths eleven supervened on the first day of hospital treatment. The indications and complications of intubation are carefully discussed.

A. Cartaz.

Dixey, F. A.—Vital Statistics of Diphtheria in London. "Brit. Med. Journ.," Aug. 22, 1896.

This paper, dealing in the main—as its title implies—with the public health aspect of the disease, contains figures which go to prove that school attendance is responsible in a marked degree for increased incidence. A general view of the statistics during the last five years indicates that the mortality in the metropolis has received a considerable check, difficult to attribute to any other cause than the introduction of the antitoxin treatment. This conclusion is further strengthened when the ratio of deaths to notifications is examined, the case-mortality during 1895 being the lowest on record, namely, 20'4 per cent.

Ernest Waggett.

Graetzer (Sprottau).— Tincture of Myrrh in Diphtheria. "Münchener Med. Woch.," 1896, No. 47.

THE author recommends the internal use of this drug in diphtheria. He has used it in ten cases with good result.

Michael.

Grixoni, G.—The presence of Bacilli resembling those of Diphtheria in cases of Purulent Otitis, and Cure by Serotherapy. "Riforma Medica," Nos. 151, 152, 1896.

OF late years the etiology of purulent otitis media has been most thoroughly studied. Notwithstanding numerous forms of micro-organisms have been discovered and recognized, the presence of Klebs-Löffler bacilli seems to have been overlooked, excepting in cases of false membranes found in the ear and complicating pharyngeal diphtheria. The author devoted his special attention to this fact, and succeeded in finding these characteristic bacilli in cases of otitis media purulenta. He refers in detail to a case occurring in a boy eleven years old, in whom the creamy discharge from the ear was found to contain, besides various types of microorganisms, bacilli which bore a strong resemblance to those of diphtheria. Cultures of these, conducted in the accepted manner, revealed two varieties of diphtheritic bacilli, which the author distinguishes as Numbers 1 and 2. Number 1 is identical with the Klebs-Löffler bacillus, excepting that it lacks in virulency. It differs from the bacillus of pseudo-diphtheria in acidifying the broth in which the cultures have been made. In this respect it is analogous to the real diphtheria bacillus, which, according to Escherich, constitutes a valuable differential feature between true and spurious diphtheria bacillus. The presence of diphtheria bacilli being established in the case, the author instituted the serum treatment with complete success. Jefferson Bettman.

Rosenthal, Edwin (Philadelphia).—Reduced Period of Intubation by the Serum Treatment of Laryngeal Diphtheria. "The Medical and Surgical Reporter," May 30, 1896.

The author wishes to prove:—(1) That the operation of intubation is the most desirable, and is more favourable than that of tracheotomy; (2) that with the serum treatment of diphtheria tracheotomy will no longer be necessary in this disease; (3) that the serum treatment in diphtheria has made a most marked and favourable reduction in the time the tube is worn in the larynx.

The author divides his statistics into percentages representing under and above one hundred and twenty hours (five days), for, in those cases requiring intubation longer, tracheotomy formerly was indicated. He also separates the statistics of American and European observers owing to the difference in technique, the former removing the string at once, while the latter leave it attached and withdraw the tube every twenty-four or forty-eight hours.

BEFORE THE USE OF SERUM.

AMERICAN.—In the author's series of one hundred cases there were thirty-eight recoveries. In these the tube was worn :-

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Under 120 hours, 12 cases ...
                                ... 31.40 per cent.
Over 120 hours, 26 cases ... ... 68.60 per cent.
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Dillon Brown places the time for final extubation at 123½ hours. O'Dwyer found that the average time the tube was worn in 158 recoveries was 146-147 hours.

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Fischer reports sixteen recoveries in which the tube was worn:-
     Under 120 hours, 4 cases ... ... ... 25 per cent.
    Over 120 hours, 12 cases ... ... ... 75 per cent.
EUROPEAN.—Gustav Baer performed final extubation as follows:—
    Under 120 hours, 20 cases ... ... 64.50 per cent.
     Over 120 hours, 11 cases ...
                                   ... 35.50 per cent.
Von Ranke performed final extubation:—
    Under 96 hours ... ... ...
                                        ... 72.50 per cent.
    Over 96 hours ... ...
                                          ... 27.50 per cent.
                             ... ...
Huebner has given 100 hours as an average for final extubation.
In Bokai's 215 recoveries the tube was worn :--
                                         ... 82.33 per cent.
     Under 120 hours, 177 cases ... ...
    Over 120 hours, 38 cases ... ... 17.67 per cent.
The average duration in Bokai's cases was 79 hours.
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PERIOD OF SERUM TREATMENT.

EUROPEAN.—Huebner reports 10 intubation cases treated with antitoxin, in which the tube was worn for 37 hours on an average.

In Von Ranke's cases the tube was removed:-

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... 87.7 per cent.
Under 96 hours, 87 cases ... ...
Over 96 hours, 3 cases ...
                        ...
                                    ... 3'7 per cent.
                               •••
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Of 90 cases intubated by Bokai since the introduction of the serum treatment, 45 (50 per cent.) recovered. In one of these tracheotomy was performed. Of the other 44 cases :-

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77.26 per cent. were extubated within 72 hours.
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13.63 ,, ,, in from 72 to 120 hours.
                ", after 120 hours.
9.11 ,,
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The average duration was 61 hours; before the serum treatment was employed the average was 79 hours. The use of serum has, therefore, lowered the duration of intubation 18 hours.

AMERICAN. -O'Dwyer intubated 30 cases since the serum period, of which 20 recovered ($66\frac{2}{3}$ per cent.). In 19 of these cases:—

 $89\frac{1}{2}$ per cent., 17 cases, were extubated within 120 hours.

 $10\frac{1}{2}$ per cent., 2 cases, were extubated at 120 hours.

The average duration was 83½ hours, while before the serum period it was 147 hours. The serum treatment has, therefore, lessened the time of intubation

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Dr. Louis Fischer reports 30 cases; of these:-
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631 per cent., 19 cases, were extubated before 120 hours.
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363 per cent., 11 cases, were extubated over 120 hours.

The tube was worn on an average 108 hours, while before the serum period the average time was 176 hours. The serum treatment has, therefore, effected a reduction of 68 hours.

Rosenthal has used antitoxin in conjunction with intubation in 20 cases, with 18 recoveries. In the latter the tube was worn:—

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Under 120 hours, 12 cases ... ... 66\frac{2}{3} per cent.
Over 120 hours, 6 cases ... ... ... 33\frac{1}{3} per cent.
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The average duration was 114 hours, and, compared with 185 hours before the serum period, there is a reduction of 71 hours.

The author also compares the results of intubation and tracheotomy, and shows that under the serum treatment, intubation suffices, and that tracheotomy may be avoided.

A. B. Kelly.

Sharp, G.—Is Membranous Croup always due to the Microbe of Diphtheria? "Edinburgh Med. Journ.," Dec., 1896.

By membranous croup the author means "a membrane in the windpipe with no "distinct evidence of previous diphtheria in the throat." Of course cases in which the membrane has been produced by mechanical, chemical, or thermal agents are excluded.

After quoting and criticizing the opinions of various authorities on the question whether croup and diphtheria are one or are two diseases, the author gives his own opinion in favour of the identity of croup and diphtheria. He inclines to the view that membrane in the larynx is due to the poison of diphtheria. Several instructive cases are cited in support of his opinion.

A. J. Hutchison.

Thresh, J. C,—A Discussion on Diphtheria in Town and Country. (British Medical Association Annual Meeting.) "Brit. Med. Journ.," Aug. 22, 1896. The statistics contained in this valuable paper, which relates to the disease in the county of Essex, should be read in the original by those interested in the increased death—and case—rate during recent years.

Among other items it is interesting to note that the annual autumnal increase commences during the period of the school holidays.

The nature of the subsoil and conformation of ground seem to bear no direct relation to the local incidence, and, in comparison with overcrowding, the quality of water, sanitation, and subsoil seem to be of trifling importance. It is the author's impression that these latter elements, together with meteorological influences, are mainly important in so far as they give rise to catarrhal conditions and a weakened state of the air passages.

Ernest Waggett.

Williams, F. (Boston).—The Prevention of the Spread of Diphtheria by the Bacterial Test. "Boston Med. and Surg. Journ.," Dec. 3, 1896.

The author draws attention to the importance of examining the secretion in the throat for the Klebs-Loeffler bacillus of all who have been exposed to diphtherial infection, and treating cases where it is found immediately, whether they show symptoms of the disease or not. He states that he has found the bacillus in the throats of persons who have been exposed to infection, but who were apparently perfectly well. In treating such cases at once, he thinks it would improve the prospect of rapid recovery and diminish the mortality. He notes the fact that in a case of diphtheria at the Harvard Medical School, Loeffler's bacillus appeared and disappeared at intervals five months after the throat was cleared of membrane following the injection of antitoxin, and that in the fifth month the bacilli were sufficiently virulent to kill a guinea-pig in thirty-six hours, although the patient was apparently well.

StGeorge Reid.