

## REFERENCES.

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- <sup>2</sup> Outlines of Lectures on Materia Medica and Botany, Philadelphia, 1827, vol. ii, pp. 133-134.
- <sup>3</sup> Diseases of the Heart, Edinburgh, 1809, p. 57. "I do not intend to say, how this medicine acts, but I can from observation declare, that it has a very powerful effect in obviating the urgency of the symptoms in dilatation of the heart."
- <sup>4</sup> Beddoes. Observations on the Medical and Domestic Management of the Consumptive; on the Powers of Digitalis Purpurea and on the Cure of Schrophula, Troy, 1803, p. 162.
- <sup>5</sup> Cushny: The Therapeutics of Digitalis and Its Allies. The Harvey Lectures, Philadelphia, 1911, p. 47.
- <sup>6</sup> Traite clinique des Maladies du Cœur, 1835, vol. i, p. 312.
- <sup>7</sup> Gesammelte Beiträge z. Path. u. Physiol., 1871, vol. i, p. 252.
- <sup>8</sup> Arch. f. Exper. Pathol. u. Pharmacol., 1883, vol. xvi, p. 149.
- <sup>9</sup> Die Therapie d. Gegenwart, 1902, vol. xlviii, p. 44.
- <sup>10</sup> *Ibid.*, p. 106.
- <sup>11</sup> Medicine, 1903, vol. ix, p. 582.
- <sup>12</sup> U. S. Hygienic Laboratory Bull., 1901, No. 74.
- <sup>13</sup> Medical Communications of Massachusetts Medical Society, 1908-1910, vol. xxi, p. 867.
- <sup>14</sup> Dixon: Quarterly Jour. of Med., 1912, vol. v, p. 297.
- <sup>15</sup> Dixon: Op. Cit. I have been unable to consult the original reference.
- <sup>16</sup> Dixon: Op. Cit. I have been unable to consult the original reference.
- <sup>17</sup> Archiv. f. Exper. Pathol. u. Pharmacol., 1875, vol. iii, p. 16.
- <sup>18</sup> Compt. rend. de l'Acad. des Sci., Paris, 1889, vol. cix, p. 679.
- <sup>19</sup> Killian's articles may be found in Archiv d. Pharm. between the years 1892-1899.
- <sup>20</sup> Modern Medicine, Philadelphia, 1908, vol. vi, p. 267.
- <sup>21</sup> Op. cit. In fact he introduced the drug on account of its diuretic properties.
- <sup>22</sup> Op. cit.
- <sup>23</sup> Heart, vol. ii, 1910, p. 5.
- <sup>24</sup> Brit. Med. J., 1905, vol. i, p. 519.
- <sup>25</sup> Hart, 1911, vol. ii, p. 273.
- <sup>26</sup> Heart, 1912, vol. iv, p. 33.
- <sup>27</sup> Jour. Pharm. and Exp. Therapeut., 1912, vol. iv, p. 97.
- <sup>28</sup> Jour. Am. Med. Asso., 1913, vol. ix, p. 499.
- <sup>29</sup> Op. Cit.
- <sup>30</sup> Gaz. Hebdom., 1874, vol. xi, p. 780.
- <sup>31</sup> Am. Med., 1901, vol. i, p. 598; *Ibid.*, 1905, vol. ix, p. 489.
- <sup>32</sup> Op. Cit.
- <sup>33</sup> Münch. med. Woch., 1904, vol. li, p. 1446.
- <sup>34</sup> Deutsch. med. Woch., 1905, vol. xxxi, p. 49.
- <sup>35</sup> Münch. med. Woch., 1906, vol. liii, p. 2140.
- <sup>36</sup> Therapie der Gegenwart, 1907, vol. xlviii, p. 199.
- <sup>37</sup> Münch. med. Wchnschr., 1909, vol. lvi, p. 904.
- <sup>38</sup> Op. Cit.
- <sup>39</sup> Op. Cit.
- <sup>40</sup> Münch. med. Wchnschr., 1911, vol. lviii, p. 10.
- <sup>41</sup> Ogawa: Deutsches Archiv f. klin. Med., 1912, vol. cviii, p. 554.
- <sup>42</sup> Münch. med. Wchnschr., 1908, vol. lv, p. 1774.
- <sup>43</sup> Ergeb. d. inn. Med. u. Kinderheilk., 1908, vol. i, p. 68.
- <sup>44</sup> Op. Cit.
- <sup>45</sup> Hirschfelder: Diseases of the Heart and Aorta, Philadelphia, 2 ed., 1913, p. 242.
- <sup>46</sup> Da Costa: On Strain and Overaction of the Heart, Washington, 1874.
- <sup>47</sup> Edinburgh Med. and Surg. Jour., 1832, vol. xxvii, p. 1841.
- <sup>48</sup> Arch. Int. Med., 1909, vol. iv, p. 238.
- <sup>49</sup> Arch. Int. Med., 1910, vol. v, p. 93.
- <sup>50</sup> Brit. Med. J., 1911, p. 1.
- <sup>51</sup> Am. J. Med. Sc., 1908, vol. cxxxv, p. 781.
- <sup>52</sup> Cushny: Op. Cit.
- <sup>53</sup> Op. Cit.
- <sup>54</sup> Op. Cit.
- <sup>55</sup> Modern Medicine, Philadelphia, 1908, vol. v, p. 267.
- <sup>56</sup> Op. Cit., p. 246.
- <sup>57</sup> Op. Cit.

NOTE. The action and uses of Digitalis are well given in Cushny's Pharmacology and Therapeutics or the Action of Drugs, Philadelphia, 5th ed., 1910, pp. 357-385. Fraenkel's Ueber Digitalis Therapie, Ergeb. d. inn. Med. u. Kinderheilk., 1908, vol. i, pp. 68-106; and Mayer's Die Digitalis-Therapie. Indikationen und Kontraindikationen. Jena, 1912.

THE Wayneflete chair of physiology at Oxford was founded under the ordinances made in 1877 by the University Commissioners, and was held by Sir John Burdon-Sanderson from 1882 until he became Regius Professor of Medicine in 1895, when his friend and former pupil and assistant, Francis Gotch, was appointed to succeed him in the chair of physiology. The lamented death of Professor Gotch last July created a vacancy which has now been filled by the election of Dr. Charles Scott Sherrington, Holt professor of physiology in the University of Liverpool. Professor Sherrington therefore again succeeds Professor Gotch, for he was appointed to the Liverpool chair when Gotch gave it up to accept the corresponding chair in Oxford. It is interesting and perhaps significant to note that each of these distinguished physiologists has been particularly devoted to the study of the physiology of the nervous system.

British Medical Journal.

## Clinical Department.

### EXPERIENCES IN THE TREATMENT OF VOCAL DISORDERS.\*

BY CONSTANCE CHARNLEY, BROOKLINE, MASS.,

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THE project of a "voice clinic" in the Psychopathic Hospital was purely experimental. There are a very few such clinics abroad, notably that in Berlin under Dr. Gutzmann, and Dr. E. W. Scripture holds such a clinic at the Vanderbilt Clinic in New York, where the patients are all treated in one large class. It was hoped that this would offer opportunity to study many varieties of speech defect, with or without mental defect, and to experiment with methods of cure.

Of the 66 cases brought in for examination during a period of nine months, by far the greatest number, nearly 75%, have been stutters. Forty-five out of the 66 showed this type of defect in degrees varying from a very mild or intermittent impediment to a constant hesitation or a struggle to speak, accompanied by more or less violent contortions, usually of some part of the head. These patients have varied in age and include all the mature cases.

Other defects occurred chiefly in children and included different forms of lisping, indistinct and retarded speech. As my own work in treatment lay with 22 out of the 66, or only one-third of the total number, and of these 20 were stutters, my statements with regard to the number of cures made and the time they required will refer only to this form of defective speech.

Prognosis is difficult in these cases, and unless there is mental deficiency, all of them are practical to treat, though, of course, difficulty of cure increases after early maturity. But even with older persons a degree of improvement distinctly worth while can be secured in most instances. Fully 50% of those who were examined were given intensive treatment; 50% remained untreated at the hospital either because they failed to return or preferred private treatment.

Of the twenty stutters falling to my lot for treatment, 10 or 50%, were cured; 4, or 20%, were very nearly cured when treatment ceased, and of these, two were quite confident that the work of completing a cure lay with themselves and would be accomplished in a limited time. Four others, 20%, seemed capable of only slight improvement, and a cure appeared impossible. Only 2, or 10%, received no benefit whatever.

It is obvious that the chance of cure is much increased by frequency of treatment, since work

\* Being Contributions from the Psychopathic Hospital (Boston, Massachusetts), Number 19 (1913, 19). The previous Psychopathic Hospital Contribution is 1913, 18, entitled "Report of Voice Clinic, Sept., 1912, to June, 1913, Out-Patient Department of the Psychopathic Hospital," by Dr. W. P. Lucas, BOSTON MEDICAL AND SURGICAL JOURNAL, vol. clxix, No. 23, p. 822.

of this sort is largely a matter of the formation of new habits, and also constructive work must be done frequently to counteract the effect of environment and daily life upon the patient. The time in which a cure can be made is also very much lessened if the treatments can be given often, and this eliminates many chances of discouragement and relapse present when patients can come only once a week.

In only one case was the patient able to come one hour every day from the first. His treatment extended over seven weeks, but the last two were spent in insuring the permanence of cure, which was accomplished in five weeks, or thirty treatments of one hour each. When it became evident that two other cases, seen for some weeks only once or twice a week were not advancing, I was able to see them both every day for a time; three weeks in one case, four in the other. Both cases proved extremely obstinate though their physical manifestations were no worse than in the case already referred to, and though they improved, they failed to yield to treatment; what the result might have been could their own confidence have been enlisted as a result of the greater improvement gained by daily treatment at first, or by keeping it up for months, it is impossible to say.

Four cures were made with patients who came three times a week and were seen little more than a half hour at a time. In none of these did the cure require more than two months, twenty-four treatments; though some of them came to the hospital longer than that to insure the permanence of cure. It is quite practical to reduce the number of treatments gradually if all goes well, until the patient is seen only once a week or even once a month; but much may be lost by doing this too soon.

Two other patients, who came three times a week from the first, evidently needed a more prolonged period of treatment and my work with them ceased before their cures were completed, one after three months, thirty-six treatments, when he declared he felt competent to complete his own cure, and one after two months, twenty-four treatments, when it was evident that a cure was quite possible in perhaps two months more.

Two others who came three times a week improved only slightly; one, a stubborn congenital case, ceased treatment after about two months, but the other had more ambition and had been taking treatment over three months when my work with him ceased. He was encouraged by his improvement sufficiently to go on, but a cure I believe is doubtful because of his lack of mental power.

Several cures were made when patients came only once or twice a week, but in some cases the treatment extended over six or eight months (twenty-four to thirty-two treatments), and in some the improvement was discouragingly slow. Yet, since such a clinic is apt to receive many cases too old for the schools, of working men and

girls anywhere from 16 to 30 years of age, it is very encouraging to know that cures can sometimes be accomplished even when the patient is so situated that it is impossible for him to take treatment more than once a week.

In only three cases out of twenty, speech trouble came on after ten years of age. Of the remaining seventeen, eight assigned definite causes for their trouble, such as a fright, a fall, the effect of an illness or operation, and in some cases, imitation. In these cases there was distinct memory of a time when speech was normal. The nine others, nearly 50% of the whole, had, so far as they knew, never had normal speech. In two cases where the trouble had begun late, after illness, at fifteen and seventeen years, respectively, the cure was remarkably quick and easy. Two other cases dating from the sixth and eighth year, respectively, and both attributed to imitation, also yielded easily to treatment.

In the rest of the cases, it does not appear that those of the longest standing were necessarily the most difficult to cure.

A cure apparently depends primarily on the ambition, intellect, and will power of the patient, and secondarily on frequency, regularity and length of treatment.

The actual cerebral conditions responsible for speech defect are extremely obscure. They have been studied of late and to a certain extent explained. But the practical side of treatment calls rather for knowledge of voice production, phonetics, and psychology, than for the more strictly scientific medical training which fits one to analyze the origin of this obscure disease.

## Reports of Societies.

### AMERICAN SURGICAL ASSOCIATION.

MEETING HELD IN WASHINGTON, D. C., MAY 6, 7 AND 8, 1913.

(Continued from page 805.)

#### AN ANALYSIS AND STUDY OF 724 MAJOR AMPUTATIONS.

DR. W. L. ESTES, South Bethlehem, Pa.: The paper tabulates 724 major amputations; 616 single major amputations with a death rate of 4.54%, and 108 multiple amputations with an average mortality rate of 20.65%.

The author insists upon (1) Asepsis.

(2) Discrimination as to the time after an injury when an amputation should be done. (The blood pressure properly measured should be the indication whether the amputation should be postponed or not.)

(3) Bloodless operation.

(4) Good and ample flaps.

These are the four especial requirements for good results after amputations for injuries. The paper