not previously suffered from the disease, would not have been very clearly developed. Pain over the kidneys, especially when occurring about middle age in patients of a cachectic habit of body, becomes frequently a very important diagnostic symptom. It is at this age, that the kidney is rendered exceedingly prone to congestion, and if this condition be not early detected, and proper treatment, with warm clothing and a carefully regulated diet, adopted, the functions of this organ often become either seriously perverted, or the viscus itself taking on the form of cachectic degeneration, the remainder of the patient's life is rendered one of constant discomfort, if it be not more speedily terminated by direct disease.

TWO CASES OF PARALYSIS OF THE PORTIO DURA OF THE SEVENTH PAIR OF NERVES; WITH OBSERVATIONS ON THE EFFECTS OF TOBACCO-SMOKING.

By J. HARMAR SMITH, Esq., Surgeon, Sheffield.

(Communicated to the Anniversary Meeting of the Provincial Medical and Surgical Association at Sheffield, July 31st, 1845.)

Among the sources of fallacy, in arriving at a correct estimate of the influence of supposed noxious agents upon the human system, a very prolific one is, the various degree of the power of resisting the causes of disease possessed by different constitutions. In some, the vis conservatrix would appear to be sufficiently potent to withstand the long-continued operation of agents, exposure to which, for a short period only, in persons of a weaker habit of body, or different temperament, may be sufficient to produce disease, or even death. These remarks will apply to the influence of the morbid poisons, extremes of temperature, impure air, &c.; but I employ them with especial reference to more strictly debilitating agents, as intemperance, debauchery, privation, &c.

Now we occasionally meet with cases, in which the constitution, whatever temporary and functional derangement may be produced by exposure to these agents, appears in the long run to have the power of resisting every injurious influence, and the individual, after a vigorous manhood, may inherit a protracted and even green old age. It is true that such cases are rare; probably much rarer than those who use them as an argument for indifference to the wants or the vices of their fellow men, would be willing to allow; but still I think it must be admitted that they are now and then met with. An eminent Judge, (the late Lord Erskine, I believe,) contributed to the statistics of this subject, by inquiring into the habits of every aged person who appeared before him; and the result of his inquiry, was what I have stated, and what subsequent experience has confirmed.

We find, in another class of cases, that the agents alluded to quickly induce disease; and in a third, which is probably the most numerous class, that a gradual impairment of the vis vitæ is produced, indicated in a predisposition to diseases of debility, and in premature old age.

We want, however, more extensive and accurate information on the subject of the etiology of disease; and whilst the importance of the study of morbid anatomy can scarcely be overrated, yet is there not

some danger of this subject engaging our exclusive attention, to the neglect of the former, and scarcely less important one? It is certainly true that our knowledge of the subject has considerably advanced during the last few years from the inquiries of the Poor-Law Commissioners; but have they met with much active co-operation in their laudable efforts on the part of the profession? Their inquiries too have been necessarily restricted to circumstances acting on the health of Society *en masse*; but I would wish these remarks to be especially understood as referring to the desirableness of more extended observation on the influence of individual habits,—a department of the subject which can only be investigated advantageously by medical men.

I have now to offer a very humble contribution to the statistics of this subject,—a contribution so humble, that I should not have thought it worth troubling you with, except that it would afford me an opportunity of offering a suggestion, which I think important. I have to refer to two cases of paralysis of the portio dura, in each of which, I think, I shall be able to offer evidence, which at least renders it not improbable, that the lesion was induced by a habit of tobacco-smoking.

A few months ago I was consulted by Mr. Y., a merchant of this town, aged 28, of sanguine lymphatic temperament and full habit; health generally good. Is in the habit of taking a few glasses of wine, but not more, daily; spends a considerable time daily, however, in cigar smoking; is not aware of any circumstance which has occurred lately, of a nature at all to affect the health, with the exception of having applied more closely than usual to business during the last few weeks. Felt as well as usual on the morning of the day but one before I saw him, when he first discovered that all was not right, by observing, that when he smiled he excited the mirth of his companions, in consequence, as he found, of his countenance being distorted. Has now all the symptoms of paralysis of the portio dura of the right side. On smiling, blowing, or exercising the facial muscles in any way, the angle of the mouth is drawn to the left side, in a degree varying according to the muscular effort, while the right side of the face remains unmoved; cannot wrinkle the eyebrow or forehead on the right side, and can only partially close the right eyelid. In eating, finds it difficult to force the morsel along the side affected, between the cheek and teeth. In brushing the teeth an obstacle also is felt in the same situation. No pain nor other head symptoms—no deafness—no feverish symptoms; has not been exposed to a draught of air or other cause of cold; no lesion of sensibility.

Being of a plethoric habit of body, although there were no symptoms of head-affection, it was thought safer to cup, blister, and purge the patient, previously to the use of stimulating remedies. Under the treatment mentioned, followed by the endermic application of strychnine, and the use of electricity, the affection was nearly removed at the end of a fortnight, when he went a journey, and completely so when he returned, after a week or two of absence from home.

A highly accomplished physician attended the case with me after the first few days, and fully coincided in the opinion which I had previously formed as to its exciting cause.

Happening during the progress of this case, to

mention it to my friend Mr. J. Gleadall, House Surgeon to the Dispensary of this town, he stated to me that he had seen some years ago, in Paris, a case of paralysis of the portio dura, which he at the time had also attributed to excessive tobacco-smoking, on evidence similar to that which I have furnished in my own case; and as the patient was a fellow-student and friend of Mr. Gleadall, he had the fullest opportunity of being acquainted with his habits, knew them to be in every other respect temperate and regular, and was aware of no circumstance, with the exception of the habit alluded to, which was likely to act as either a predisposing or exciting cause of the affection. The case was under the care of M. Magendie, and was cured by electricity.

I am not aware of any case of paralysis of the portia dura on record having been attributed to the use of tobacco; nor indeed, do I remember seeing an account of any case of paralysis, which has been imputed to this cause. Still I think a result of this kind, is quite in keeping with what we know of the physiological properties of the oil of tobacco, and is an effect which *a priori* reasoning upon them would lead us to expect. It is reasonable to suppose, that the practice of volatilizing so powerful a sedative poison, and applying its vapour to the lining membrane of the air-passages, should produce derangement of the nervous system, varying in intensity according to its greater or less dilution with atmospheric air; and that, therefore, on the nervous fibrils proceeding from the mucous membrane of the mouth, a situation where the vapour must be comparatively concentrated, the effect should be most considerable. The sedative operation of tobacco has also been found by experiment to be exerted chiefly on the motor system; and it is quite in accordance with our knowledge of the nature of reflex action, that an impression of any sort, although immediately acting, as in this case, upon a sensory nerve, should be conveyed through its medium to the corresponding motor nerve.

It may possibly be objected to my conclusion as to the exciting cause in the first case, that the circumstance of the patient having applied more closely than usual to business for some time previously to the attack, was sufficient to account for it. Now, although this circumstance, by debilitating the whole nervous system, might not improbably predispose the part to which the sedative was immediately applied to the disease which supervened, yet I apprehend that a more general affection of the nervous system, or at least of one or more of the nervous centres, would have been in all probability the result, if such had been the exciting cause. That there was no affection of the nervous centres, would appear, not only from the absence of any symptoms directly referrible to them, but also from the fact that there was no symptom of affection of the *auditory* portion of the seventh pair of nerves.

Nor is it a valid objection to my view, that some individuals live long and healthily in spite of the habit of tobacco-smoking; for there can be no doubt of the correctness of the premises on which the inferences stated in my introductory remarks are founded; and if the injurious influence of agents of acknowledged potency may be long resisted by the powers of the constitution, we are certainly entitled to reject all objec-

tions to the alleged noxious tendency of an agent, which are derived from cases of partial, or even entire immunity from its effects.

Still I am aware that my view of the exciting cause of the lesion, in these cases, may be taken exception to from the cause to which I have referred, viz., the deficiency of statistical information which exists on subjects of this kind, and which I am persuaded is the origin of much of the uncertainty which is often felt and acknowledged, even by the most accomplished members of the profession, in ascertaining with even moral certainty the exciting cause of many of the cases of disease to which they may be called, as well as of much of the difference of opinion existing in regard to the influence of personal habits on the health.

The subject which has been already introduced, furnishes an illustration of this remark; but not further to dwell upon it, I will very briefly, in conclusion, advert to another subject, on which still greater difference of opinion exists, in a great measure, no doubt, depending on the same cause—deficiency of statistical information. I refer to the use of alcoholic beverages as an ordinary article of diet. On this subject, one of our most eminent authorities, Dr. Copland, in the article "Drunkenness," in his immortal work, the "Dictionary of Practical Medicine," observes as follows:—

"There can be no doubt that an occasional excess is upon the whole less injurious to the constitution than the practice of daily taking a moderate quantity of any fermented liquor or spirit."

Many of the leading members of the profession too, in town and country, including Sir Benjamin Brodie, Sir James Clarke, the late Dr. Hope, Dr. Blundell, Dr. Marshall Hall, &c., have signed a testimonial drawn up by Mr. Julius Jeffreys, in which it is stated as their deliberate opinion, that the ordinary moderate use of the alcoholic drinks is rather injurious than beneficial, and tends rather to diminish the aggregate amount of a man's labour than to increase it. Other able men have expressed similar and some still stronger opinions on the subject. Yet, that these views are completely opposed to those which are entertained on the subject by a great proportion of the profession, is a fact which it would be a work of supererogation to attempt to prove. Now, as I think it will be acknowledged that much of the difference of opinion existing on this and other kindred subjects, arises from the want of a sufficiency of careful observations in reference to them, it has occurred to me that the usefulness of this Association might be still further enhanced by following in the path of an Institution, of which it may be considered, as, in some measure, the counter-part, although perhaps, owing to the peculiar advantages possessed by the British Association, *haud paribus æquis*, and appointing committees from amongst its more talented members, to investigate subjects on which there exists much need of inquiry, and in regard to which there would be special advantage in co-operation.

These remarks will undoubtedly apply to the subjects to which reference has already been made. The subject of climate, especially in its influence on health, also is one, in the investigation of which this Association would possess peculiar advantages, since there is obviously none in which it is so desirable that

simultaneous observations should be made in different localities.

Mesmerism also is a subject which needs dispassionate scientific investigation, and a modified assent to its less improbable doctrines is gaining ground in the profession; but it appears extremely desirable that authentic observations should be collected in relation to it, since there is no subject in which there is so much reason to doubt the genuineness of alleged facts, inasmuch as there is none which is so much in the hands of ignorant pretenders to science, but none also in reference to which the educated public so urgently demand enquiry at the hands of the profession. Here also the facility of concurrent action presented by the Association would be peculiarly advantageous.

Since writing this paper, my attention has been directed to an able and interesting paper on the deleterious influence of tobacco-smoking, by Dr. Allnatt, in the *Medical Gazette* for June 6th.

After making some general remarks on the toxicological properties of tobacco, the writer introduces the following passage, which I quote, as strongly corroborative of the views which I had expressed as above, previously to meeting with this paper:—

"In the present luxurious and artificial state of society, more especially in large towns, medical men are frequently at a loss to ascribe the maladies they are called to treat, to a specific origin; but I firmly believe the habit of smoking has engendered in this generation many evils which have been imputed to other sources."

Dr. Allnatt goes on to observe, that he has known frequent instances of hypochondriasis in young, active, and temperate men, which he was unable to account for until he found that they were habitual smokers. After some further remarks on the injurious influence of this habit, Dr. Allnatt concludes by an invitation to medical men to direct their attention to this much neglected subject.

RESEARCHES ON THE COMPOSITION OF THE BLOOD IN HEALTH AND IN DISEASE: A MEMOIR PRESENTED TO THE ACADEMIE DES SCIENCES, PARIS, Nov. 18, 1844.

By A. BECQUEREL, M.D., and A. RODIER, M.D.

(Translated from the *Gazette Médicale de Paris*, by EDGAR SHEPPARD, Esq., M.R.C.S.)

(Continued from page 603.)

OF THE BLOOD IN EPHEMERAL FEVER.

Simple continued fever, (prolonged ephemeral fever, synochus,) is a disease, the cause of which has not yet been discovered either in a modification of the solids or the fluids, although opinion has attributed it to an exaggeration of the plethoric state, which state was made to consist in an increase of the proportion of globules in the blood. We have endeavoured to profit by the opportunity which has occurred to us of collecting and analyzing the blood in some cases of simple ephemeral or continued fever; and the following is a summary of the results derived from an analysis of the blood in five individuals, three men and two women.

Men.—The three men were aged 24, 26, and 27 years; one of them was of robust nature, the two

others a little less so. All were in good health before the present attack, which had commenced a few days previously, and presented no signs of plethora. All three were affected with simple continued fever, specially characterized by cephalalgia, lassitude, more or less intense febrile disturbance, loss of appetite, constipation, &c. The following is the mean composition of the blood:—

MEAN COMPOSITION OF THE BLOOD IN EPHEMERAL FEVER. (MEN.)

Density of the blood deprived of its fibrin	1056.8
— serum	1025.5
Water	781.6
Globules	142.4
Albumen	65.7
Fibrin	2.8
Extractive matters and free salts	5.8
Fatty matters	1.700
Seroline	Variable.
Phosphorated matter	0.563
Cholesterine	0.112
Soap	1.005

IN 1000 GRAMMES OF CALCINED BLOOD.

Chloride of sodium	2.7
Soluble salts	2.8
Phosphates	0.321
Iron	0.569

In examining the analysis of the blood in each individual, case we find, that the globules, instead of diminishing, as under the influence of disease in general, have rather a tendency to increase, or, at least, to remain in the normal state (146, 142, 138); the albumen, on the contrary, diminishes a little; the fibrin remains normal; the fatty matters are abundant; the seroline is variable; the phosphorated fatty matter is normal, or, perhaps, slightly augmented; the cholesterine is elevated, and almost reaches the same that it attains when the patient is dieted, or when there exists an acute disease. The saponaceous matter is abundant, but within the normal limits; nevertheless, the salts present nothing abnormal.

Women.—The two women were of the ages of 27 and 32 years. One was of a strong constitution, with a brown skin; the other, on the contrary, had been enfeebled by previous privations. Both presented a simple continued fever, which venesection assisted in dispersing in a few days.

The globules were increased in the first case (135.5); in the normal state in the second (125.5); the fibrin was normal in the strongest (1.9); double in quantity in the weakest (3.6); the albumen quite normal (73 and 70); the fatty matter normal; the seroline unappreciable; the cholesterine slight in the strongest woman; increased in the debilitated (0.120); the saponaceous matter and salts normal.

The serum was very abundant in one case; but little in the other; turbid in both; the clot resistant, and of a brown colour marbled with red in the one where the globules were 125; but, on the contrary, soft, diffuent, and of the colour of wine-lees where the globules stood at 135.

These results shew that, according to our analysis of the above five cases, the condition of the blood may be