**CASE OF DIABETES,
SHOWING THE IMPORTANCE OF BREAD AS AN
ARTICLE OF DIET.**

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(Read before the Reading Pathological Society,
May 9, 1843.)

The pathology and treatment of diabetes, or mellituria, are so confessedly obscure and unsatisfactory, that no apology is necessary for the publication of every thing which tends in any degree to advance our imperfect knowledge of the subject.

CASE.—Simon Weller, aged thirty-one, a ploughman, residing at Shinfield, Berks, was admitted into the Royal Berkshire Hospital on February 14, 1843. He stated that fourteen weeks previously he was in his usual good health; that after sweating freely at his work, he caught cold on returning home, and has never been well since. At first he suffered from considerable lassitude, pains in his limbs, and some febrile disturbance, for which he was bled and took medicines. From these symptoms he gradually recovered, and at the end of three weeks observed, for the first time, that his urine was clear, pale, and very abundant, filling two chamber utensils or more in the course of a day and night. Before this it had been high colored, cloudy, and not unusually copious; and when in health, he states that if he drank stale beer or caught cold his water quickly threw down a yellow sediment. Has never suffered from gravel; there has been but little variation in the quantity of the urine up to the present time, and from the period of its increase he has gradually declined in flesh and strength, with sense of weariness and pains in the loins, a constantly dry skin, though naturally disposed to perspire, considerable thirst, craving appetite, clammy mouth, and epigastric heat and uneasiness. This last symptom is relieved by eating, and he prefers animal food; states that no member of his family ever had any similar symptoms. His parents are living, but a brother and sister have died of consumption. For several weeks he has been too feeble to work, and considers himself gradually getting worse.

Present State.—Countenance depressed and anxious; complexion rather pale, with circumscribed flush on either cheek; muscles flabby, and his movements slow and languid; emaciation moderate; intelligence sluggish but not deficient; eyes clear and bright; skin warm, dry, rather harsh, and without eruption; pulse soft, small, regular, 70; no cough or other pulmonary symptom; lips dry; mouth clammy; tongue coated in the centre, slightly red on edges; gums not spongy; appetite craving; thirst distressing; epigastric uneasiness, with slight pain and tenderness on pressure; abdomen soft, flat, and free from pain; bowels rather costive; urine pale, straw colored, with faint smell, and frequently passed, disturbing him at night; complains principally of aches in the loins, not increased by motion or pressure, and relieved by micturition. Ordered, a vapor-bath every evening; flannel clothing; two eggs for breakfast, with beef tea; two mutton chops, with greens or turnip tops for dinner; one egg, with beef tea for supper. Drink beef tea *ad libitum*. Bread and every other article of food strictly prohibited. A draught,

containing five grains of ammonia, six minims of laudanum, in camphor mixture, was prescribed three times a-day, and half an ounce of castor oil every other morning.

16. Has sweated freely after the bath, with much relief. Has passed three pints of clear straw colored urine, rather frothy and acid. Says the quantity is less by one half.

19. Six leeches to the epigastrium, and add fifteen grains of magnesia to the draught. Complained of epigastric uneasiness and acid eructations. Drinks about three pints of beef tea day and night. A pint of his urine, evaporated, yielded about three drachms of a nearly solid tarry extract, strongly urinous in smell, and with a slight saccharine taste.

20. Three and a half pints, 10·22; feels and looks better.

24. Two and a half pints, deeper color, and clear; feels better but weaker. Omit the bath.

25. Craves much for bread, which was allowed instead of vegetables.

26. Two and a half pints, 10·33.

27. Three pints, 10·38, paler, with faint smell and viscous; one pint yielded thirteen drachms of a thick treacly extract. Not so well; pains in loins, increased debility, and thirst. To return to *first* diet. Add five grains of ammonia to the draught, with infusion of quassia.

28. Two pints, 10·43; feels a little better; more cheerful. Repeat the bath alternate evenings.

March 1. Two and a half pints, 10·33, opalescent, pale; improving.

2. Two pints, 10·22, clear, pale, urinous smell; thirst less urgent. Repeat the draughts with decoction of bark.

3. Three and a half pints, 10·18, paler.

4. One and a half pint, 10·22, darker color. Has taken half a pint of coffee, contrary to orders.

5. Three pints, 10·21.

6. Four pints, 10·15.

7. Two and a half pints, 10·25, not so well.

8. One and a half pint, 10·26, turbid, neutral. Symptoms all returning; says he is worse; a slight bellows murmur can be detected in the neck. Twenty drops of the muriated tincture three times a-day, with a drachm of muriatic acid in a pint of water for drink. On strictly questioning the patient, he confessed having eaten some bread the last two days, which a patient had given him.

9. Four pints, 10·20.

10. Two pints, 10·13; much better; thirst gone; mouth moist; tongue clean. To take thirty drops of the tincture; warm plaster to the loins.

11. Two pints, 10·17; improving.

12. One and three-quarter pints, 10·15. Forty drops of the tincture.

13. One and a half pint, 10·20.

14. Two pints, 10·20, strongly acid; improving.

15. Two and a half pints, 10·13; craves for bread. Continue the tincture and take two grains of quinine with each dose.

16. Two pints, 10·15; is evidently gaining flesh.

17. Two and a half pints, 10·13.

18. One and a half pint, 10·19. To have bread again instead of vegetables.

19. One and three quarter pints, 10·24.

20. Three pints, 10·21.
 21. Two and a quarter pints, 10·37, cloudy; not so well; thirst increased; tongue coated. *To return to first diet.*
 22. Two pints, 10·36; much the same.
 23. Two and a quarter pints, 10·14, opalescent; tongue cleaner; feels better.
 24. Two and a half pints, 10·18.
 25. Two and a half pints, 10·15, improving.
 27. Two and a half pints, 10·15, clear, and darker color.
 29. Two and a half pints, 10·18.
 30. Two pints, 10·15.
 April 1. Two pints, 10·15; is cheerful and gains flesh.
 3. Two pints, 10·18.
 4. Three pints, 10·12.
 6. Two pints, 10·18.
 7. One and a half pints, 10·15, lithic acid deposits; smells like healthy urine; no complaint. A pint of urine yielded less than a drachm of a dark extractive matter, not sweet, and with a strong urinous smell. He has greatly improved in every respect; the skin is soft and natural, and every local and constitutional symptom has disappeared.
 8. Discharged. Advised to continue the steel drops, to wear a large warm plaster to the loins, and to observe rigidly the same diet.
 May 4. About a fortnight after leaving the hospital he felt so well that he was tempted again to eat some bread. In two days he was frightened by a return of his old symptoms, and of his own accord resumed his vegetable food. He has now evidently regained flesh and strength, considers his urine natural, and is only conscious of diminished muscular power when exerting himself.

REMARKS.

The above is an example of a rather mild though decided case of diabetes, exempt from visceral complication, not very chronic, and presenting the simple condition of saccharine urine with very slight increase in the quantity. It was, therefore, favorable for the trial of treatment.

The chief practical interest of the case arises from the effects of *bread* as an article of diet. Its use was sufficient rapidly to increase the quantity of sugar in the urine, and to re-excite the constitutional symptoms. The same results following its first substitution for vegetable food, also when the patient clandestinely obtained it, also after a second intentional trial of its effects, and subsequently the experience of the patient after leaving the hospital, seem to leave no reasonable doubt of its injurious influence, and points out the great importance of carefully ascertaining its effects before sanctioning its use. We believe that, had it not been withheld in the present instance, our treatment would have failed.

Several observers have objected to the use of bread, and a glutinous preparation is now made in London expressly for diabetic patients; but the great importance of total abstinence has not, as far as we are aware, been strongly insisted upon. By the leading writers a small quantity of bread is permitted, and by Dr. Prout is rather recommended. It is, in fact, a prevailing opinion that a mixed animal and farinaceous diet is on the whole most desirable, and that Dr. Rollo's

system need not be rigidly enforced. From the preceding case, however, it is clear that much caution is requisite before admitting such an indulgence, and that the best directed treatment may be frustrated by a single dietetic imprudence.

A second fact worthy of notice is the safety and advantage of allowing the free use of the cruciferous vegetables, as first, we believe, pointed out by Dr. Babington. This is a most important point, and enables us more easily to enforce a continued employment of animal food. They are cheap, can at all times be obtained, and their natural tendency is to keep up a healthy action of the bowels.

Ammonia was also prescribed, in accordance with Dr. Babington's suggestions; but no difference resulted from the substitution of steel. There was no indication in the symptoms for more than a very sparing use of opium, which we merely administered for its sedative effects. We have, indeed, little to say about any other than the dietetic treatment, which would probably have been alone successful. The baths afforded evident relief, and at once diminished the quantity of urine.

By reference to the specific gravities, it will be seen that many slighter variations were merely expressions of change in the *quantity* secreted, and not in the quality—a distinction necessary to make.

As to the state of the patient when discharged, we do not consider him as *cured*, but merely that the morbid condition was materially controlled, if not for a time subdued, and that life might be greatly prolonged were the elements of the saccharine formation rigidly withheld. We should always be very cautious in reporting a diabetic case as cured. Out of sixteen cases, Dr. Copland says he can only recollect two which seemed permanently benefitted; and Dr. Prout states, "I have now seen a few cases in which the saccharine quality of the urine has, *for a time*, entirely disappeared, and a very great number of cases in which the symptoms have been so far subdued as to give little trouble to the patient;" but he does not mention a single example of a well ascertained and permanent cure.

As respects the nature of the disease, we have nothing satisfactory to suggest. Dr. Prout's conclusion that it is nothing more or less than a form of dyspepsia, principally consisting in a difficulty of assimilating the saccharine elementary principles, though not explanatory, is perhaps amongst the most reasonable probabilities at present in our power.

The interesting experiments of M'Gregor, Bouchardat, and Percy, proving the presence of sugar in the stomach, blood, and excretions generally, are very favorable to such an hypothesis, and demonstrative of the fallacy of the opinion, so long and so generally entertained, that the kidneys were the seat of the disease. It would be almost equally unphilosophical to assert that the stomach is the viscus principally at fault, the functions of that organ being discharged with much apparent energy and vigor in the early, and often in the later stages of the complaint. The subsequent disturbance of this organ, so frequently observed, may be fairly ascribed to the nature and quantity of the ingesta.

There is no doubt some more important and more radical element, some modification of the nervous system, particularly the organic, hereditary in some

and induced in others, on which the secondary changes are dependant.

The nature of this is at present unknown ; but the confession of ignorance is more consistent with future discovery than assuming as an explanation what is manifestly inadequate to account for the phenomena.

It is now also considered as highly probable, if not proved, that sugar is a product of the first stage of all healthy digestion ; and from the observations of Chesebourn, Prout, and others, it forms a constituent of the urine in many cases of carbuncle and malignant ulcerations of the gelatinous tissues. These facts strengthen the supposition that mellituria is dependant upon some constitutional dyscrasy, and not upon mere local disturbance.

We shall not, however, pursue the question farther but collate the practical results of different observers which have been, for the most part, recorded in our periodical literature of the last few years.

To account for the differences in opinion and practice which they disclose, it may not be unprofitable briefly to allude to the leading theories which have prevailed as to the seat and nature of the disease.

Mead, Rollo, and later observers, have supposed it dependant upon increased action and secretion of the stomach, with a vitiation of the gastric fluid, and probably a too active state of the lacteal absorbents, while the kidneys and other parts of the system—as the lungs and skin—are only secondarily affected. These have principally confided in animal diet, opium, and emetics.

Willis, Sydenham, and, more recently, Drs. Latham, Prout, and others, ascribe it to a peculiar alteration of the blood produced by an imperfect action of the assimilating powers, without distinctly defining its course or seat. This view is but a modification of the preceding, and has involved in its supporters very similar principles of treatment.

The ingenious, but not always sound, Dr. Darwin fixes upon the lacteals, which, by their retrograde action, he says, throw the half-elaborated materials of nutrition too quickly upon the excreting organs, and thus originate the disease. We need scarcely remark that such an assumption is gratuitous in the highest degree, and directly at variance with the valvular structure of these vessels. A far larger class of observers, from Galen downwards, including Richter, Dupuytren, Watt, Henry, Satterly, and others, make the kidneys the seat of the disease, and their morbid condition more or less inflammatory. By these observers, bleeding, mercury, and astringents have been employed.

Dr. Marsh, and others, attribute diabetes to suppressed or disordered function of the skin, and have principally insisted upon the diaphoretic plan. A sixth, and we believe a daily increasing number, confess that they are still ignorant of any satisfactory pathology ; and that, while modern researches have opened up many interesting views of the question, they have not yet revealed the true cause and nature of the phenomena.

This class, among whom we feel ourselves to be included, are both eclectic and empirical in their practice, more influenced by the evidence of curative success than by the plausibility of any particular hypothesis.

Another cause of the contradictory statements of authors as to the efficacy of remedial agents, very clearly pointed out by Dr. Prout, has arisen from not distinguishing between a saccharine condition of the urine, and a preternatural flood of that secretion, substances having been extolled as remedies which have only diminished the flood of urine and its consequences without altering in the least degree its saccharine condition.

These preliminary remarks will, we think, enable the reader to make a more intelligent selection from the many remedies and plans amongst which he has to grope his way.

Dr. Rollo's celebrated treatment was as follows :—

Breakfast and Supper.—A pint and a half of milk mixed with half a pint of lime water, or beef tea with toasted bread.

Dinner.—Game and old meats, and, as far as the stomach can support it, fat and rancid old meats—as pork.

Drink.—Four quarts of water, in which was dissolved a drachm of the sulphuret of potassium. For this a few drops of the hepatised ammonia was afterwards substituted. Anoint the skin with hogs' lard every morning. To wear flannel, and to use very little or no exercise. A draught at bed time of twenty-five minims of antimonial wine and laudanum, gradually increasing the dose. An issue the size of half-a-crown opposite each kidney. The bowels to be regulated by equal parts of aloes and soap. Emetics were also occasionally advised. There can be no doubt that much benefit resulted from so decided and so ably conceived a plan. The issues and the use of bread are the objectionable points.

Dr Watt, whose statements attracted great attention, advised animal diet, with repeated and copious bleedings, followed in many instances by rapid salivation and blistering. Some cases appear to have yielded to this method, and an interesting example of its effects is recorded by Dr. Barlow, of Bath. The idea was to modify the crisis of the blood.

Dr. Barlow, of London (Guy's Hospital Reports, October, 1840), in addition to animal diet, strongly advises the use of the cruciferous vegetables—as greens, broccoli, turnip tops, sea kale, water cresses, &c. Also the carbonate of ammonia, with or without opium, increased from five grains to a scruple three or four times a-day. Moderate exercise, an occasional warm bath, and rhubarb with sulphate of potash as a laxative. The usual drink was brandy and water. Dr. B.'s intention was to increase the nitrogen of the system.

Dr. Venables, on the other hand (Med. Gaz., Oct. 20, 1839), thinks there is an excess of nitrogen, and advises a mixed animal and farinaceous diet, giving the best underdone mutton and beef twice in the twenty-four hours, with milk and eggs. The drinks to be all tepid, and to consist of hotwell waters, broths, and milk. He particularly recommends the combination of morphine with ipecacuanha, also the *uvæ ursi*, kino, and catechu. In two cases the following pills were prescribed with benefit :—

Sulphate of potash, half a drachm ;
Powder of ipecacuanha, four grains ;
Acetate of morphia, two grains. Rubbed together, and added to—

Acetic extract of colchicum, fifteen grains;
Extract of *uvæ ursi*, two scruples. Mix. To be divided into twenty pills, and one taken every night.

The phosphate of iron, and especially the muriated tincture, also the phosphate of soda and the disulphate of quinine, are recommended by the same observer.

Dr. Bardsley, in his excellent article in the "Cyclo pædia of Practical Medicine," advises bleeding in the early stage, and considers animal diet and opium the most important means. He permits a small portion of farinaceous food, and prohibits vegetables and fruits.

Dr. Alley gave animal diet and bark.

Dr. Fraser animal diet and steel.

Dr. Ferriar relates three cases arrested by the following powder four times a-day, with lime water for drink :—

Powder of bark and *uvæ ursi*, of each one scruple;
Opium, half a grain. Mix.

Dr. Copland speaks strongly in favor of the daily use of purgatives, and advises infusion of senna or rhubarb with gentian. He speaks favorably of sulphur as a laxative.

M. Bouchardat (*Gaz. des Hop.*) ascribes the disease to suppressed cutaneous action combined with a morbid state of the mucous membrane. He advises flannel over the whole surface, no bread if possible, animal diet, with ammonia and opium. Two cases much benefitted are related.

Dr. Combetti (*Gaz. des Hop.*, Oct. 20, 1842) prescribes animal food, broths, no bread, a bottle of claret and lemonade for drink, with five grains of the iodide of iron four times a-day. This plan appeared successful in one instance.

Mr. W. Lambert, of Thirsk, Yorkshire (*Med. Gaz.*, Oct. 2, 1841), states that he has found the following plan very useful, and that the mercury so employed has not affected the mouth :—

Diet.—Biscuit and old milk for breakfast and supper; mutton chops with a biscuit for dinner, and chicken broth or old milk with lime water for drink. A sulphur bath alternate mornings, and from ten to twelve grains of Dover's powder, with eight to twelve of mercury, with chalk, twice or three times a-day. Cupping to the loins followed by a blister.

Dr. Parry, of Bath, prescribed successfully in one case a bleeding from the arm, followed by an ipecacuanha emetic. Animal food, with abstinence from all spirits and fermented liquors, fruits, acids, sugar, new bread, cheese, salads, giving a grain of digitalis and aloes at noon and night, and two scruples of the carbonate of potass three times a-day. A shower bath was occasionally conjoined.

Dr. Gilby has published several cases which were, he thinks, cured by nitric acid.

Nitric acid, one drachm and a half;

Barley water, half a pint;

Syrup, two ounces. Four tablespoonfuls in an equal quantity of water three times a-day.

The addition of syrup to the mixture is rather singular.

The hepatised ammonia, beginning with five drops three times a-day, with abstinence from vegetables and bread, is said to have proved successful. Two

drops are added daily till nausea or giddiness are felt. A draught of opium and antimony at night, and brandy and water for drink. This plan is to be continued till the urine is turbid and the gums pale, when a gradual return to bread and vegetables.

Dr. Reece advises ratanhia with a warm bath once or twice a-week. Flannel clothing, a chiefly animal diet, and alum whey for drink.

The tincture of lytta is favorably mentioned in the "Medical Gazette," May 13, 1837, and the following form is stated to have proved serviceable :—

Tincture of lytta, two drachms;

Acetate of morphia, one grain;

Camphor mixture, eight ounces. Mix. An ounce three times a-day.

Urisburg and Morgagni also thought well of cantharides.

Dr. M'Cormac says—"I have certainly derived more advantage from vapor baths, flannel next the skin, occasional doses of Dover's powder or opium, with a liberal mixed regimen, avoiding, of course, all saccharine ingredients, than any other procedure."

In the "Lancet" for Oct. 24, 1840, three cases are related apparently arrested by the following formula :—

Tincture of sesquichloride of iron, two drachms;

Tincture of opium, one drachm and a half;

Disulphate of quinine, eight grains;

Water, six ounces. Mix. A sixth part three times a-day.

The combination is worth trying.

Mr. E. Howard, of Rotherfield, (*Med. Gaz.*, Nov. 13, 1840) succeeded in a well marked, but not very chronic case, by animal food and one of the following pills three times a-day :—

Sulphate of iron and sulphate of zinc, of each one drachm;

Extract of camomile, two scruples. Mix. Make into thirty pills.

In two months, he says, no trace of the disease remained.

Dr. Baillie's chief dependance was upon laudanum combined with some bitter—as infusion of rhubarb or calumba. The quantity of landanum he proposed was fifty drops during the day. Bleeding, both local and general, was often, he thinks, useful, as the blood-vessels of the kidneys are more or less distended. The diet should be temperate, and consist chiefly of animal food; the best drink on the whole is Bristol water.

Sydenham says—"Let the patient eat food of easy digestion—such as veal, mutton, and the like—and abstain from all sorts of fruit and garden stuff, and at his meals drink Spanish wine." This illustrious observer also advised opium, and did, in short, what we are still obliged to do, and thus proving how slowly we progress.

Dr. Berndt (*Brit. and For. Med. Rev.*, July, 1836) concludes as follows :—

1. Emetics are excellent palliatives.

2. Opium diminishes hunger, thirst, and urine.

3. Ammoniated copper checks the formation of sugar, and acts favorably upon the nerves of the stomach. It may be given in large doses, as from ten to sixteen grains daily.

4. A meat diet is the best. The other remedies are useless.

5. Creosote improves the urine and diminishes its quantity.

Dr. Marsh (Dub. Hosp. Rep., vol. iv, p. 432) observes "that in many of the cases whose histories are recorded, the earliest disturbance in the general health could be distinctly traced to some cause acting on the skin; that every case is accompanied with a peculiarly morbid condition of the skin; that none of the remedies produced the slightest benefit till the skin began to relax and a sweat to appear on the surface."

Lastly, an interesting and elaborate case of diabetes is now publishing in the "Medical Gazette," by Dr. Percy, of Birmingham, accompanied with very accurate details and experiments. It is well worthy of attentive perusal.

After reflecting upon the preceding case, and upon the experience of different observers in the treatment of this obscure and formidable affection, we would recommend the following plan to be pursued:—

A diet of animal food, with eggs, beef tea, and the cruciferous vegetables, all farinaceous and other articles to be strictly prohibited. The drink to consist of beef tea, lime water, diluted mineral acids, distilled water, alum whey, or very weak brandy and water, as might be indicated; all to be taken tepid, and the patient recommended to restrain himself in quantity. Flannel clothing on the whole surface. Very moderate exercise. The regular use of vapor baths, in proportion to the patient's strength, and the state of the skin, followed by inunctions with oil or lard; stimulating terebinthinate embrocations to the loins; opium in proportion to the diuresis and irritability; ammonia and magnesia in the early stages, and afterwards the free use of mineral and vegetable tonics and astringents. In the early and acute stage, one or two bleedings from the arm might be premised, and in many cases it is probable that occasional local depletion to the loins and epigastrium would be desirable. The specific gravity, quantity, and other qualities of the urine should be very frequently, if not daily, ascertained. The effects of farinaceous food upon the local and general symptoms should also be occasionally tested.

STATISTICAL REPORT
OF
190 CASES OF INSANITY
ADMITTED INTO
THE RETREAT, NEAR LEEDS,
During Ten Years, from 1830 to 1840.

By SAMUEL HARE, Esq.

(Continued from p. 213.)

III.—CAUSES OF INSANITY.

Even with the greatest care, this is a matter in which it is extremely difficult, in many cases, to arrive at an accurate conclusion; the difficulty is much increased when the patients come from a distance, so that written communications only can be obtained from their friends, for under such circumstances many causes are omitted, which by verbal questioning might be elicited. Again, in other instances, causes obviously incorrect are assigned, a common error being to allege as a cause that which in reality was the com-

mencement or an effect of the disease; thus, in one case the "supposed dishonesty of servants," was put down as a predisposing cause of insanity, while in reality this was only one of the early hallucinations under which the patient labored. In comparatively few instances were *predisposing causes* assigned, excepting when these consisted in hereditary predisposition, a subject which has been already mentioned; and as in several of the remaining cases, those given could not, for the reason stated above, be depended on, I have thought it better, as the list must necessarily have been imperfect, not to give the predisposing causes at all, and have, therefore, confined myself to the exciting ones, which will be found in the accompanying Table, No. XI.

They are here divided into the two classes of physical and moral, the larger number being included in the latter division, since it contains 62·5 per cent. of the cases where the causes were known, while only 37·5 per cent. of them are included in the former division. Among the males, the moral causes were more productive of insanity than the physical ones, in the proportion of 41 to 27 cases, or 60·29 to 39·71 per cent.; the same observation is applicable to the females, but with still more force as regards the moral causes, which in them seem oftener to produce insanity than amongst the males, while the physical causes of insanity are of course proportionately less common; thus, out of the 52 females in whom the causes could be ascertained, the moral to the physical were as 34 to 18, or as 65·38 to 34·62 per cent. Looking at the subject in another point of view—of the 75 cases excited by moral causes, 41, or 54·66 per cent., were males, and 34, or 45·34 per cent., were females; and of the 45 produced by physical causes, 27, or 60 per cent., were males, only 18, or 40 per cent., being females.

Amongst the physical causes, intemperance holds by far the most prominent place, insanity being ascribed to it in no less than 15 cases, out of which 13 were of the male and 2 of the female sex; it was a cause, then, of 12·5 per cent. of the whole of the cases whose causes were ascertained, and, if the males alone be considered, to the extent of somewhat more than 19 per cent. (13 cases out of 68). Four cases were ascribed to falls on the head, accidents, &c., to which males are obviously more liable than females. In 4 males insanity followed attacks of fever, to the effects of which it was ascribed; cerebral disease and epileptic fits each produced 2 cases, while inflammation of the brain and paralysis were each said to have caused 1. Some cases arose from causes peculiar to females, such as the 3 puerperal ones, and the 4 from change of life and suppressed menstruation. Of the cases, amounting to 75, induced by moral causes, anxiety on pecuniary affairs, on commerce, or on property, seems to have been the most fertile source; it numbered no less than 17 cases, all of which, with one exception, were among males. Anxiety from other causes and jealousy, as far at least as they are causes of insanity, seem confined to the female sex, while females, too, are oftener affected by grief and contrarieties in domestic affairs.

Hopes and fears on the subject of religion were stated as exciting causes in 14 persons, the *proportion* being rather greater amongst the females than the