fact be explained, that, after the removal of a cancerous tumour, *with an often prolonged interval of apparent cure*, the adjacent lymphatic glands may become affected without any local recurrence of the original tumour? Why, in those cases in which it is more reasonable to refer the glandular swelling to infection from the original tumour, the lymphatic rather than the vascular system should be the channel of infection, is a question as difficult of solution as the fact is easy of observation. The analogies of poisons, in their preference to vascular or lymphatic absorption, is the nearest approach to explanation we can offer. But, that the cancerous virus may also be conveyed by the circulating blood to remote organs, two excellent examples will at once demonstrate. The one is a case of Professor Wernher's of Giessen, to whose politeness I am indebted for some excellent original drawings of the preparations. A man had his thigh amputated for fungus hæmatodes of the upper third of the left tibia. He died seventeen days after the operation, with symptoms of gangrene of the lungs. After death, gangrenous abscesses were seen in the lungs. These were found to depend on occlusion of the pulmonary arteries by cords of cancer; whilst in the blood of the vena cava ascendens, Professor Vogel detected the microscopic elements of cancer.* The next case alluded to is that of Professor Paget. (*Vide* p. 786.)

But our statistics on the consecutive infection of the vascular system in cases of malignant disease remain to be made; for in how many *post mortems* (conducted as they generally are after a fixed routine) are the blood and its channels, notwithstanding their exalted physiological and pathological position, ever examined? Proceeding, however, from the scanty materials we possess, one's attention is arrested by the following facts.

For the lungs to be consecutively infected in cancer of the testis, is comparatively rare; but, out of 8 cases which I have collected, in no less than 5 cases (upwards of one-half) the vascular system is stated to have been simultaneously infected. In 5 instances of vascular infection in 14 cases of osteoid cancer, in all the lungs were so also.† In a single instance out of 16 cases of cancer of the liver in which the lungs were affected, in that very case was the vascular system. It must be remembered, too, that it is most probable that in many cases the affection of the vascular system was overlooked; but that deposits in the lungs were so, is improbable.

These facts, coupled with those of direct observation (as in Professor Wernher and Paget's cases), would seem to indicate that, *wherever the lungs become the nidus of consecutive cancerous deposits, they do so through the medium of the vascular system.* This view is in a degree supported by the facts observed in another disease—pyæmia. The purulent deposits of pyæmia may not inaptly be compared to those of cancer and tubercle, the differences in the three diseases depending on the different *times* the different processes expend in their consummation. I do not stand alone in seeking to establish these analogies. The same idea has struck many other authors. Of these, I may cite Cruveilhier. He calls attention to the fact that the lungs and liver are the organs prone to secondary abscesses and secondary cancers; that, the same as multiple abscesses of the liver are the consequence of phlebitis, so does cancer affect a sort of predilection for the surface of the organs.‡

The connexion between phlebitis and pyæmia is admitted: a similar connexion between cancer of the blood and cancer of the lungs is rendered probable by the foregoing considerations, but still remains to be proved.

The frequency with which the *viscera* are consecutively affected in cases of malignant disease may be compared with that of affections of the lymphatic system, and will be found to hold the second numerical rank. The general statement is, that the lungs and liver are the organs most often consecutively affected. This crude statement is true, but affords little information either to the pathologist or to the surgeon. In discussing this point, I have been obliged to glean my materials from the most various sources, and regret to say that I have been compelled to dismiss from consideration two most important organs—the breast and uterus. The records of complete cases of cancer of these organs are rare, because the cases are common. Let us, however, see what results emanate from the consideration of some other classes of cases. Repetition will be avoided, and the subject made the clearer, by exhibiting these results in a tabular form.

Primary Deposit.	Cases.	Secondary Deposits in the—					
		Lymphatic glands.	Lungs.	Liver.	Vascular system.	Brain.	Stomach.
I. Malignant disease of the testis	36	30	8	9	10	—	—
II. Encephaloid of the femur or tibia	9	1	3	3	1	—	—
III. Malignant disease of the soft parts of lower extremities	10	6	7	2	1	—	—
IV. Osteoid cancer of the lower extremities (one of the upper extremity)	14	7	9	0	5	—	—
V. Encephaloid of the eyeball or orbit	14	8	—	—	—	11	—
VI. Cancer of the liver....	16	5 abdl	1	*	1	—	8

From the above numerical data, we may deduce the following conclusion—that *special original deposits are succeeded by special consecutive deposits.* For example, in 13 cases of osteoid cancer of the lower extremity, in no less than 9 were the lungs affected; while, on the contrary, in 16 cases of cancer of the liver, in only 1 were the lungs affected. In 32 cases of malignant disease of the lower extremities, in 14 were the lymphatic glands affected; whilst, in 36 cases of the affection of the testicle, in no less than 30 were the glands contaminated. There is reason to suppose that, with our advancing knowledge of the pathology of cancer, we may be able to deduce further conclusions on this interesting point. As yet, the one announced appears to be the only one fairly deducible from the data referred to.

PECULIAR URINARY DEPOSIT IN SCARLATINA.

By C. E. Prior, M.D., Bedford.

There is occasionally observed in different stages of scarlatina, though more frequently from about the tenth to the fifteenth or sixteenth day (and frequently persisting much longer), a peculiar character of urinary deposit, which, notwithstanding the attention that this subject has received from various authors, has never been described—at least, not so far as I know—by English authors, and certainly not with the fulness and care which its importance as a pathological sign requires. The nature of this deposit has been to me, on many occasions, a subject of investigation, both chemically and microscopically; but I cannot say that the results I have thereby attained have been such as to render me perfectly clear on the subject.

I should premise that what I may say on this matter is with a cognizance of the ordinary results of the "acute desquamative nephritis" of Dr. G. Johnson, following on scarlatina, and of the forms of albuminuria incidental to the disease; but that I cannot reconcile any of the descriptions enumerated by Prout and others with the form of deposit which has passed under my observation, unless it

* Vide "Ein Fall von Krebs der Lungenarterie, von Dr. A. Wernher", in Henle u. Pfeufer's Zeitschrift, N. F. Bd. v, 2. Heft. pag. 109.

† The cases of osteoid cancer possess a value in discussing the relation of the lung to the vascular infection—1, because, being a rare disease, the *post mortems* have been made carefully; 2, because any infection of the vascular system is rendered the more obvious by the nature of the deposit.

‡ Cruveilhier's "Anatomie Pathologique du Corps Humain". Paris: 1829-35.

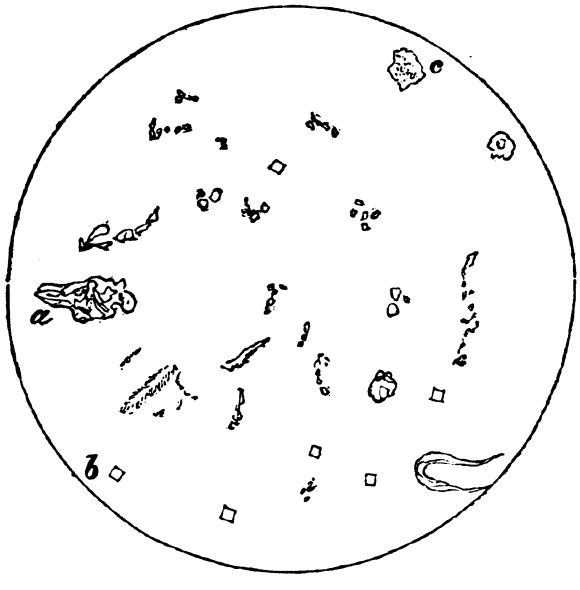
be the few words of the latter author: "The sediment deposited by acute serous urine, is usually of a deep brownish red colour; and consists essentially of the lithate of ammonia" (p. 122). But this is followed by: "In all instances, on the application of heat (about 150° or 160°), acute serous urine becomes opaque, from the deposition of albuminous matter." Now this latter observation does not at all apply to the deposit in question.

The deposit appears generally in the convalescent stage of the disease, or, at least, after the disappearance of the eruption, and is generally, but not always, associated with dropsy; but I have seen it in all stages. I have seen it accompany the eruption: I have also seen it without any eruption—in fact, as the only symptom of this erratic malady; of this, more anon. Generally persistent through some days, or even two or three weeks, it is occasionally fugitive or intermittent, and has sometimes occurred during a single day without any subsequent recurrence.

The quantity of urine is generally profuse—as much as two quarts in twelve hours from a boy twelve years old. In the utensil, the deposit appears as a dark turbid cloud, floating about the lower third of the contents. The colour is a deep dirty olive brown; in fact, of a character never to be mistaken. The brown colour is fugitive; and agitation in carrying the urine, or even long standing (two to three days), will, to a great extent, remove it.

Effect of Chemical Reagents. Liquor ammoniæ clears the urine, but not thoroughly. Nitric acid renders it more clear than does liquor ammoniæ. Strong nitric acid renders it almost perfectly clear. By heat, the urine becomes almost entirely clear. The reaction is strongly acid. Boiled with liquor potassæ, it leaves a thick sticking residuum on evaporation. (I would not like to insist on this point, as there is a little confusion in my notes.)

Microscopical examination, with Ross's quarter inch object glass (linear power 400 to 500), shewed a few discs of carbonate of lime (*c*); a few cubes of chloride of sodium (*b*); and fragments of epithelium (*a*). The mass of the deposit consisted principally of aggregated globules, some broken in various forms—linear, circular, and other—in aggregations of from three or five to nine or ten. Of this, I send a figure.



Such is the mean of several observations. I should state that the microscopical examinations were made in company with Mr. Nowell of Dunstable, a gentleman who, though not a member of our profession, is thoroughly versed in the nature of urinary deposits, and in the employment of one of the best instruments it was ever my fortune to make use of. I enclose his note on the subject:—

"On further examination of the urine, and reading what Dr. Bird says on the subject, I feel *quite certain* that the deposit is urate of ammonia, together with an abnormal quantity of bladder mucus, epithelium, and other organic debris. Whether purpurine is present or not, I am unable to decide."

Taking it, then, at this, viz., "That the deposit in question consists of urate of ammonia, with an admixture of purpurine;" or, even leaving it an open question, I come to a second point, on which I would wish strongly to insist, though the space at my disposal warns me to exercise more brevity than is altogether congenial:—*I say without hesitation, that the occurrence of the deposit in question, attended with elevation of pulse and heat of the skin*, during the progress of an epidemic of scarlatina, constitutes, *to all intents and purposes, an attack of the disease, whether eruption or sore throat be present or not.* The present distinctive symptoms of scarlatina are two—eruption and sore throat; with these I range a third, viz., the peculiar state of the urine I have mentioned. I should say that this deposit occurs in at least 8 per cent. of the cases under treatment; probably much more, if the urine were regularly observed—a matter rarely to be compassed in certain descriptions of practice; and I think it very probable that at least 3 per cent. of the cases occur in which it is the only symptom. I think that, in one or two cases, I have observed the same deposit in the alvine secretions; these were in persons with whom it occurred to an extreme extent.

While some eruptive fevers are peculiarly limited in their symptoms, march, and duration, scarlatina has no character so constant as its *inconstancy*—an eruption varying in intensity from the deepest scarlet suffusion of the entire surface to a mere rosy blush of the neck or chest, or extremities where pressing on the heel; in character, from an aggregation of minute scarlet points, to the diffuse blotches of scarlatina morbillosa, or vesicular elevations almost simulating miliaria; in duration, from a few hours to seven or eight days; sore throat at one time, the appalling phagedænic form of scarlatina maligna; in cases short of this invading all the respiratory membranes; at another, a mere transient inconvenience. Add to these all the kinds and degrees of eruption without sore throat, or sore throat without eruption; and then, amongst the various characteristics of this erratic malady, I claim the admission of the urinary deposit I have described as a symptom, though more infrequent, not a whit less genuine than the others, and perfectly unequivocal in its character.

OPIUM-EATING.

By James Bower Harrison, M.D., F.R.C.S., Corresponding Member of the Epidemiological Society of London, etc., Higher Broughton, Manchester.

In the April number of the *Psychological Journal* for 1854, I presented the reader with some particulars of the effects of opium-eating, as gathered from the romance-like story of De Quincey, and the melancholy revelations of the unhappy but gifted Coleridge. Of the tyranny of habit there can be little doubt; but the representations of one of these writers, at least, may have diffused in England somewhat exaggerated representations of the exhilarating and pleasurable effects of opium-eating. Let it be remembered, then, how much the influence of stimulants takes its complexion from the mental constitution upon which it acts.

The following case, which came under my own observation, serves at least to show that all opium-eaters are not equally felicitous in their experience, and that the inconveniences of a pernicious habit may exist without its enchantment.

On the 10th of April, 1855, a young woman, of the name of Margaret Robinson, called upon me, stating that she was an opium-eater, and had been requested to wait upon me, as one interested in such people. She was a