where the insertion was torn out, and the patella was displaced upwards for four fingers' breadth. The other occurred to a young officer when making a similar effort. The symptoms, this writer enumerates, are great pain, evident deformity, and upward displacement of the patella, but his cases were some months old before he saw them, and in them a loose band of union had been formed, enabling feeble movements of extension to take place, results so different from that attending the treatment in the case now described, that I venture to suggest the procedure adopted by me, or some modification of it, as a reliable method of treating this injury.

MENSTRUATION AND PHTHISIS.

By H. HANDFORD, M.D., M.R.C.P.,
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IN 1882 I called attention to the connection of menorrhagia with pulmonary phthisis in a graduation thesis for the University of Edinburgh. Since then, extended clinical observation has convinced me of the truth of the following two maxims, the first of which receives very strong confirmation from some statistics of phthisis published by me for another purpose in the *Medical Times and Gazette* for November 28th, 1885:—

1st. Early or excessive (frequently only relatively excessive) menstruation is an important and common predisposing cause of phthisis.

2nd. The female children of phthisical parents tend to menstruate unduly early and excessively.

The association of amenorrhœa with phthisis is universally recognised. It is the rule in the later stages, and is far from uncommon in the earlier periods of the disease. That menorrhagia plays a part in predisposing to phthisis, and that it is not infrequently met with in the very early stages is not generally acknowledged.

Dr. Graily Hewitt¹ has noticed the connection between uterine hæmorrhage and tubercle, or a tendency to tubercle. Similarly it was observed by French authors towards the earlier part of this century that many cases of phthisis in the earlier stages are characterised by menorrhagia rather than amenorrhœa, which latter only supervenes much later. But these observations seem to have been forgotten and discarded, especially since the discovery of the tubercle bacillus has, in the minds of many, done away with the importance of "predisposition" and "heredity"—a view by no means countenanced by the writings and labours of Koch.

Dr. Wade, in the Ingleby Lectures (*BRITISH MEDICAL JOURNAL*, June 5th, 1886, p. 1056) says: "We see other cases; cases in which the patient is precipitated by a first menstruation, or by two or three repetitions, not into a better, but into a worse state of health, and often into phthisis. One such case of phthisis has come under my notice within the last few weeks." My experience, gained chiefly from hospital out-patient practice, strongly confirms this. A typical case, illustrating both the maxims with which I commenced, is as follows:—

A. E., aged 19, curtain mender. Menstruation first commenced at the age of 11½ years, flow lasted five days, was excessive in amount, but recurred regularly every month, till the last year, when she began to spit blood, then it recurred every fortnight. This statement the patient volunteered. For the past year she has menstruated eight days at a time, the flow has been excessive in amount, and has recurred every fortnight, so that she is only "well" six or seven days. Her father and mother both died of consumption. She has had one brother and three sisters. Of these, one sister died of consumption, aged 19. Another died of "worm fever," aged 8. The remaining brother and sister are both consumptive.

The patient has had a winter cough for several years, has had a

¹ *The Diagnosis, Pathology, and Treatment of Diseases of Women*. Second Edition. Pp. 45 and 421.

"Pathologically, tubercle of the uterus has been usually supposed to be rare; but hæmorrhage from the uterus in tuberculous women, dependent on the state of the blood, rather than on organic local changes, is not so uncommon."

"According to my experience, young women in whom there are signs of a tendency to, or an actual development of, tubercle, are very frequently the subjects of profuse menstruation, the cause being the defective and vitiated state of the blood."

In these passages, which were, of course, written long before my observations were made, I was glad to find so strong a confirmation of the views I have expressed above—views which were based purely on the result of personal clinical observation before I had read the passages quoted. In the majority of the ordinary text-books I have not found any distinct reference to the connection of uterine hæmorrhage and pulmonary phthisis.

In making the above quotations, I must not be understood to accept the view that the "defective and vitiated state of the blood" is the sole cause of the hæmorrhage.

muco-purulent sputum for one year, and occasional hæmoptysis for the same time. For the past four or five months she has spit blood nearly every day to the extent of a teaspoonful, and sometimes much more. There were physical signs of consolidation at both apices, with a few moist râles. She had suffered from night sweats for one year. Temperature at noon usually 99° Fahr. Under treatment, chiefly by ergot at first, the hæmoptysis and the menorrhagia were checked, and the chest condition also improved somewhat, but after three or four months she was lost sight of. Other cases have been followed out to a fatal termination.

Turning now to the evidence afforded by statistics, it will be seen, by referring to my paper in the *Medical Times and Gazette*, quoted above, that for equal numbers of each sex living, the death-rate from phthisis at "all ages," is much greater for males than for females in Prussia, Sweden and Copenhagen, and slightly greater in England and Wales for the decade 1871-80. In the United States and in England for the two periods, 1851-60, and 1861-70, the female death-rate is very slightly higher than the male. But when we take the death-rate for each sex at different groups of ages for equal members of each sex living at each group, we find that during the first year of life there is a preponderance of male deaths. For the next years up to 10, the proportion remains very equal, but eventually the female deaths are slightly in excess. At the age-period 10 to 15, in all the tables the female deaths are nearly double the male. The home and school life, and the employment of children between these ages, are not sufficiently different in the two sexes to account for such a sudden change. The years 10 to 15 embrace the period of puberty, the establishment of which produces a greater disturbance, and causes a more rapid general development in the female than in the male. At this time, and at no other, the female, inferior to the male in stature, and weight from birth onwards, rapidly catches him up and surpasses him; so that between the ages of 12½ and 15 or 16, girls are both taller and heavier than boys (see *Life History Album*, by Francis Galton, F.R.S., pp. 84-5). It is probable that this excessively rapid growth, together often with some drain upon the strength from the menstrual flow, renders the female sex at that period an easier prey to tubercle than the male. From 15 to 20 the female deaths are double the male in the United States, half as many again in England, slightly in excess in Prussia and Copenhagen, and slightly below the male in Sweden. From 20 to 40 or 45, the female deaths still remain in excess in England and America, except in the decade 1871-80 in England. Here the male deaths are very slightly in excess, but the difference is remarkably less than after the year 45 is passed, when the male deaths are, as a rule, nearly half as many again as the female. In the other countries the great excess of male deaths shows itself at this period 20 to 45 also, though the difference is much less than at more advanced ages. Here again the simplest explanation seems to be the drain put upon the strength and general nutrition by child-bearing and lactation,² acting in a similar manner to menorrhagia at an earlier period. It is difficult to find any condition in the occupation or habits of women between the ages of 20 and 45, which should render them more liable to phthisis than men at the same age, and which would not be equally operative from 45 onwards, when in all countries there is a very marked predominance of male deaths.

Referring to the supplement to the Forty-fifth Annual Report of the Registrar-General, pp. cxii—cxvi, we find that the mortality for equal numbers of each sex living at each group of ages is from "All Causes" about equal for the two sexes at the age-period, 10—15. There is, however, a very slight predominance of female deaths. I have already stated that for the thirty years 1851-80, the female deaths from phthisis at this age-period are nearly double the male. There is also a definite, though very much less marked, predominance of female deaths at the age-period in question from diseases of the respiratory system other than phthisis,—from diseases of the circulatory system, fevers, whooping-cough, and diphtheria. From all the other classified causes, the male deaths are in excess. It is possible that the cause of the predominance of female deaths from the diseases mentioned may be the same as in phthisis, which is the only one in which the difference is so striking as to require an explanation.

And now coming to the bearing of these points on practical medicine. The occurrence of unusually early menstruation in a girl with a

² Fagge's *Principles and Practice of Medicine*, vol. i, p. 979. Child-bearing and lactation are recognised as playing an important part in predisposing to phthisis. Dr. Pye-Smith states, in the same place, that deaths of mothers "in childbirth," or "after delivery," are frequently due to phthisis. It is not without significance that in cattle, highly bred cows, and especially those animals that are noted for being good milkers, are unusually frequently affected with tubercle. In them the effect of quickly repeated pregnancies and of excessive lactation in predisposing to phthisis is well known.

phthisical inheritance should be taken as an indication that she is in a specially suitable condition for the infection of tubercle, and for the progress of the disease when infection has taken place; and should warn us to place her in the most favourable conditions of life. Menorrhagia, too, interpreted in its widest sense, occurring under similar conditions, should be speedily checked. Not because there is any specific connection between menorrhagia and tubercle, but because the occurrence of menorrhagia seriously lowers the state of nutrition of the tissues, and renders them an unusually favourable soil for the growth of tubercle whenever infection, to which so many of us are constantly exposed, takes place. The frequency of menorrhagia among the children of phthisical parents I take to be due to no specific action of tubercle, but merely to indicate an undue "vulnerability" of the tissues which renders them less capable of maintaining healthy life under unfavourable conditions than the tissues of other children are.

NOTES ON A CASE OF SEPTICÆMIA WITH SUBNORMAL TEMPERATURE.

By JOHN T. TIBBLES, L.S.A., MELTON MOWBRAY.

G. W. B., aged 35, stonemason, at the beginning of November last suffered from contusion and ecchymosis caused by a slab of stone falling across the inside of his right leg; after treatment and a fortnight's rest, he was enabled to return to work. There had been no ordinary sign of pericistitis. At the end of fourteen days he felt unwell, and incapable of continuing his work; complained of coldness down the back, and had symptoms of gastro-hepatic derangement to which he was frequently subject. There was no pyrexia. The patient did not improve, and on the seventh day of attendance had diarrhœa. The following notes were made of the subsequent progress of the case.

December 13th. During the last three or four days, symptoms had developed which seemed scarcely consonant with the diagnosis of simple disease of the liver and stomach, namely, great depression and exhaustion, absence of fever with a gradually increasing typhoid condition, and restlessness. Further examination of the abdomen revealed depression of its walls, increased sensitiveness of the skin, and enlargement of the spleen, which was painful on pressure. There was no pain or tenderness along the injured leg. Pulse 84, feeble. No pyrexia; urine normal.

December 14th. No action of bowels. Symptoms persist. Aching of limbs, especially inner side, and calves of legs. Has slept but little. Respirations slow; temperature 98°.

December 15th. A little muttering delirium. Well marked and general lymphangitis. Respirations slow; pulse 86; temperature both in axilla and mouth 97.5°.

December 16th. Enlarged and painful axillary glands; no redness, heat, or other sign of suppuration. Spleen less painful. Rambles and picks nose. Abdominal walls in same tense condition. Pulse 84; temperature 97°.

December 17th. Lymphangitis fading away. Typhoid condition persists; "aches all over," lies with legs drawn up. Pulse feeble, 86; temperature still falling, 96.8°. *Night*.—Being summoned at 7.30, I found the patient raised on pillows, very pale and pinched, complaining of pain in his chest. There was distinct pericarditis, with a well marked rub; but there was still no pyrexia, rather the temperature had fallen during the day to 96.5°. Respirations 13.

December 18th. Not so much pain in the præcordial region; appearance of a mealy desquamation about skin of extremities; subsultus tendinum; typhoid condition the same; bowels and urine normal. Respiration slow, regular, deep, 13; temperature, 96°. Dr. Powell saw the patient this morning, and verified the temperature-reading. *Night*.—Main symptoms unchanged. Pulse 84; respirations 13; temperature 95.8°.

December 19th. Somnolent. Respirations 12; pulse 80; temperature 95.3°. *Night*.—Same drowsy state. Breathing noisy, slow, with long pauses; respirations 12; pulse 78; temperature 94.5. Boat-shaped condition of abdomen persists.

December 20th. Slept on right side in a state of general flexion; can be easily roused, and, though his speech is very thick, answers rationally. Pupils contracted. Hiccough, but no pain. Breath, previously of the peculiar sweetish character, now offensive. Deglutition impossible. Respirations 12; pulse 60; temperature 93°. *Night*.—Since 3 p.m. has been sinking into deep coma. Pulse 48; respirations 15; temperature so low that thermometer could not register it.

December 21st. Died at 6 A.M.

REMARKS.—The foregoing is a brief record of a case of septicæmia, peculiar as presenting a subnormal temperature. We may suppose that some localised suppuration followed the injury to the leg, which did not make itself manifest by the ordinary signs. Thirty-four days after the accident, fourteen days after apparent recovery, the patient developed symptoms which might belong to any of the usual and common disturbances of the digestive system not marked by pyrexia, subsequently assuming an asthenic form, and followed by lymphangitis and pericarditis. Yet the most characteristic symptom of septicæmia was absent; rather there seems to have been an inversion of the temperature. At no period of the later illness was the temperature above 98°; but there was a continued fall, at first slow, more rapid towards the end, until the night before the patient died it was considerably less than 93°.

OPHTHALMOLOGICAL MEMORANDA.

GLASSES "À DOUBLE FOYER."

I wish to call the attention of ophthalmic surgeons to those cases in which they may deem it expedient to prescribe glasses "à double foyer." Convenience and optical advantage to the patient are derived from setting the lower, or reading-glass, in such a position as to form with the upper, or distance-glass, an obtuse angle, whose apex looks forwards and downwards (the distance-glass being of course vertical) of 150°. The patient has then no alternative other than to look directly through the glass prescribed for his immediate want, and he will do this without feignitious astigmatism. The comfort and ease afforded by this arrangement to patients for whom I have ordered these glasses are described by them as being exceedingly great.

These glasses were exhibited at the late meeting of the British Medical Association at Brighton, by Messrs. Rowley and Son, opticians to the Sussex Eye Hospital, St. James's Street, Brighton, who carried out the suggestions I made to them some months before with their usual accuracy and good workmanship.

CHARLES OLDHAM, F.R.C.S.,
Senior Surgeon to the Sussex Eye Hospital.

CLINICAL MEMORANDA.

"A SIX-FINGERED FAMILY."

HAVING read in the BRITISH MEDICAL JOURNAL of January 1st an interesting article under the above heading, I was reminded of the following notes which I collected last year of a similar case. During October, 1885, there appeared in your columns a series of letters by Mr. Noble Smith and others on the ætiology of congenital deformities, which at the time aroused considerable interest. Meeting with this case some time afterwards, I made the following notes:—

Having delivered Mrs. A. of a female infant, I was struck at her anxiety to see the child's hands, when I became aware that it had six fingers on each hand; at a subsequent visit I questioned the mother about it, and found that it was a hereditary deformity (paternal side). She was one of a large family (three sisters and four brothers), and was born with six fingers on each hand, but one had been removed by silk thread a short time after birth. The other allowed to remain was equal to the fifth finger in size, and growing at a right angle from the inner side of the hand, and, as far as I could ascertain, the joints of both communicated, but in the extra finger flexion was very limited, and consequently, not only awkward, but most unsightly. The infant had an almost identical condition.

Great bias existed amongst the friends on the point of amputation, as in each case in which it was practised it proved fatal. Of the three sisters two were free, but of these one married and had a child with extra fingers on each hand. Now we come to the brothers, and find a new feature added. Each alternate one had the deformity; one of these so deformed married, and has a son with extra fingers and toes. This finishes Mrs. A.'s generation. Her father was free from it. Her grandfather had an extra digit on each hand. Beyond this I could not get accurate details, only that it did exist in previous generations.

Several interesting features are here presented, namely, alternate brothers only had it, and in one case extra toes are found; regarding transmission it showed a tendency to atavism.

I do not presume to offer any solution of the pathology of this complex problem, but it has occurred to me that we should distinguish between these deformities and cleft palate, hare-lip, etc., for in one case you have partial arrest of development, and in the other, nature is in excess.

CAMPBELL BOYD.