

EARLY PUBERTY.

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My attention has been recently directed toward the subject of early puberty, in consequence of having been consulted by a lady in regard to her daughter, who commenced to menstruate last month (October), at the age of nine years and five months, the flow continuing five days. This girl has a youthful face, and a mind in correspondence with her years, but is in all other respects far advanced towards womanhood, being five feet one inch high, having well developed mammæ, rounded limbs, a moderately well developed pelvis, hair upon her pubis, and weighing ninety pounds. She has been reared in a quiet country place, educated at home, and kept free from all excitement. A sister of twelve, who is two and a half inches taller, and four pounds heavier, has as yet no sign of approaching puberty.

In contrast with this case, I present two others, each representing different types of precocious menstruation, in which the epoch anticipates the other characteristic marks of puberty. The *first* is that of a large, over-grown plethoric girl, such as are very apt to menstruate at an early age, particularly in cities, whose menses appeared for the first time two months ago, at the age of eleven years and nine months, at which time she measured five feet one inch and a half in height, and weighed one hundred and six

pounds. The attack was of a menorrhagic character, and due no doubt to the effect of the long hot summer, acting upon a plethoric habit. With all this size and weight, there is nothing womanly in the girl's configuration; her mammæ are undeveloped, her pelvis but slightly enlarged, and the measure of her chest and waist nearly the same. The parents of both these mentioned cases are of only medium height.

The *second* is that of a little girl who came under my notice, just two years and a half ago, at the age of twelve years and six months, at which time her menses made their first appearance. She was then four feet eight inches high, of very narrow frame, and weighed seventy-two pounds. Her parents are both below medium height, that of the mother being five feet. At fifteen, which she has just reached, she measures the same in height as her mother, weighs ninety-five pounds, and is only now presenting in her figure the marks of womanhood. She is mentally quite precocious, has been educated at home, enjoys excellent health, and is strong and active, from much attention having been paid to her physical training. A sister of nearly thirteen, and better developed than the former at twelve and a half, has not yet menstruated. After the first menstrual flow ceased another made its appearance a few days later, when under an attack of measles, but soon stopped, and there was no return for six months, since which time she has been regular. At the close of the summer, as in the last case, the attack for the first and only time was menorrhagic in character.

Precocious menstruation may be divided into two varieties: 1st. That which occurs during infancy, or

the first seven years of life. 2d. That which appears at a later period of childhood, but is still anterior to the ordinary age of puberty; *i. e.*, from seven years of age to thirteen, the latter being an early period, but not markedly precocious, because in this climate even from one-eighth to one-sixth of the girls menstruate before they reach fourteen.

Infantile menstruation is by no means so rare, as any one might be led to suppose who had not examined the records found in large medical libraries. *True* menstruation, confirmed in character by all the necessary evidences of approaching puberty, has been so often met with and reported upon that a large number of well-authenticated cases might readily be collected from the journals of Europe and the United States, if thought advisable, but I think it will be sufficient to give a summary of facts, as obtained by a very extensive and tedious research.

In infantile cases, the attention of the mother or nurse is generally attracted by the womanly development of the child before there is any appearance of the menses. Children have been born with the marks of puberty upon them, or have rapidly acquired them at a very early age. Some, it is true, have menstruated without having these evidences, but such are an exception to the general rule, are generally irregular, have the symptoms of cachexia, and fall victims to some wasting disease. But, in the great majority of cases of infantile menstruation, precocious puberty is undoubtedly present, and the whole system is in correspondence with it, so that the function does not, in its performance, interfere with the growth or health of the subject. From an examination of numerous re-

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ported cases of infantile puberty, I have drawn the following conclusions, viz. :

1st. With very rare exceptions, no matter how young the infant may be in whom the menses have made their first appearance, the mammæ are found unusually developed, and the pubis shaded with hair.

2d. The subjects, have, in almost all instances, menstruated regularly, grown rapidly and vigorously, been somewhat inclined to obesity, and have not presented any signs of weakness resulting from the menstrual loss.

3d. This form of precocity appears to be little, if at all, dependent upon any climatic influence; the later variety is undoubtedly accelerated by heat.

4th. The maturity of the uterine system is generally independent of any marked precocity of development in the mental faculties.

5th. Sexual passion, so general with precociously developed male infants, is seldom a marked characteristic in females of corresponding years.

6th. The first appearance of the menses is more common during the first, second, and third years of infantile life than it is in the fourth, fifth, and sixth.

7th. Infantile puberty is more common in the female than in the male sex, although in the latter there are cases which are quite as remarkable as any in the former.

What the age of nubility may be in these subjects we are left almost to conjecture to determine, as but few observers have followed up their cases, and reported the ages at which they subsequently became mothers. In the case related by Dr. Rowlett, of Ken-

tucky,* the child menstruated at one year, was regular thereafter, and gave birth to an infant weighing seven and three-quarter pounds, at the age of ten years and thirteen days, at which time the mother measured four feet seven inches in height, and weighed 100 pounds.

In Schmith's case, reported in 1779, the menses appeared at two years, and the child gave birth to a dead foetus when eight years and ten months old, which was thought by its development to have reached its full term. The appearances of the mammæ and pubis of the mother were said to resemble those of a girl of seventeen.†

Sir Astley Cooper gives a very remarkable instance. The girl commenced to menstruate when three years old, and was last noticed by him in his report when seven years and five months old, at which early age she had all the appearance of a thick-set, stunted woman, so much so that she was a noticed object when in the street. She measured four feet one inch high, and had so large a pelvis, that she could no doubt have given birth to a foetus.‡

Le Beau's case also menstruated for the first time when three, and was so large and well developed by the age of eight that he regarded her as capable of bearing a child at that period.§

Among the well-authenticated cases of early pregnancy in subjects not menstruating during the period of infancy may be mentioned the widely known one recorded by Dr. Bayliss,|| as attended by him at the

* *Transylvania Med. Jour.*, vol. vii., page 447.

† *Sue's Essais Historiques*. Paris, 1779, vol. 2, page 344.

‡ *London Med. and Phys. Jour.*, 1810, vol. xxv., page 117.

§ *Annales d'Hygiene*, vol. x., page 484.

|| *Boston Med. and Surg. Jour.*, Sept. 9th, 1846.

Taunton, Massachusetts, Alms House. The young mother was born of native parents in that institution, the record of which proved her to have been ten years, eight months and seven days old at the time she was herself delivered of a male infant weighing eight pounds. It was subsequently found that she had menstruated once or twice prior to impregnation, and that the father was a boy of sixteen. Notwithstanding the youth of the mother, her child grew vigorously, so that at the age of three years and two months, he measured three feet, five inches, and weighed forty six pounds.

I have not met with any *well-authenticated* record of birth having taken place in England prior to the age of twelve years.* Thorpe delivered a girl a few months over twelve (exact age not given) of a full-grown but still-born foetus. "Her figure was that of a well-grown young woman, with fully developed mammæ."

A girl aged twelve years, seven months and three days, gave birth to a full-grown child at Coventry, England, September 16th, 1848; she commenced to menstruate at ten years and six months. The father was a man of forty-seven.†

Probably the earliest case of parturition in this city was that which occurred in the practice of Dr. George Fox about thirty years ago, where the mother, according to the statements of her parents, which there was no reason to discredit, was eleven years and three months old at the time of her delivery. She was in labor two days; affected with convulsions from its commencement until some hours after its de-

* Edinburgh Med. and Surg. Jour., vol. xxxviii., page 231.

† Phil. Med. Ex., 1849, vol. v., page 494, from Brit. Rec. Obs. Med.

livery, which was accomplished by means of forceps, and gave birth to a living fœtus of full maturity which died in a few hours. The mother bore the appearances of precocious puberty, and made a good recovery. The case has never been reported in any of our journals, and I was unable to learn the age at which she commenced to menstruate, or any other particulars in regard to her, as Dr. F. was obliged to give me his account from memory. It is more than twenty years since he first told me of the occurrence.

I have not examined with any degree of care into the subject of male precocity, but am inclined to believe from what I have learned that there is a greater proportion of cases among the black than the white race; whether this be a correct opinion or not, it is certain that some of the most remarkable cases of infantile puberty, associated with herculean muscular development, that have ever been placed upon record were of the African race.

As a counterpart to the first recorded case of puberty in this article, I will give one male case of the same age, which has come under my own observation. He belongs to the white race, and the higher classes of society; commenced to exhibit marks of puberty at nine years of age, in the growth of his beard, extraordinary size, character of voice, etc. At twelve, he had a full beard, ceased to grow in height, and was a man in all respects, except in intellect, which subsequently developed fully. He had, besides, the sexual passions of a man, which he indulged to a marked degree. Having ceased to grow at twelve, although large for his age at that time, he presented,

at that of ordinary manhood, a short, stunted appearance, as such cases are apt to do.

It is impossible to determine with any degree of accuracy from the tables which have been published what is the proportion of females menstruating in temperate regions at the ages of nine, ten and eleven years, for the reason that to do this would require much more extensive and carefully collected records, because of the small percentage which is thus affected. In the cities of Paris and London, taking all classes into the enumeration, I presume that one girl menstruates at the age of nine, to from one hundred to two hundred who are thus affected at a later period of life. In India, where the maximum is reached at twelve, the proportion of these earlier years is much greater, and may be more satisfactorily determined. Among the Hindoos, from one to two per cent. menstruate as early as nine; three to four per cent. at ten; eight per cent. at eleven; and twenty-five per cent. at twelve. This is more especially the case with the inhabitants of Calcutta, in whom the catamenia make their appearance somewhat earlier than in some other parts of India, where the climate is cooler, or the people belong to another race; for the term "Hindoo" embraces many very distinct nationalities, and it is a question whether ethnological influence is not more potent than difference of temperature, except where the latter is extreme, in determining the age of puberty. However this may be, it is a well-established fact that the Hindoos, taken collectively, from the hot portions of India, without respect to caste or race, menstruate much earlier than the women of temperate climates. By this mode of

computation it will be seen that the greatest number in India reach puberty at twelve years of age; that sixty-five per cent. of them menstruate before reaching fourteen, against but twenty-five per cent. of the women of France and England; and that before one-half of those in these two named countries have reached puberty, four-fifths of the Hindoos have attained it.

To make comparisons of any value between cities, countries, or climates, based upon a *general mean average*, not less than several thousand cases should be enumerated, and in all instances the exact age in years, months and days should be given. This not having been done, although the results have been tabulated in years and fractions, the next best plan is to compare the proportions which menstruate prior to any given age, as I have done above. It is impossible by any means of computation to arrive at a perfectly satisfactory result, if we are to base our calculations upon the tables which have been prepared by different observers, especially those which refer to the inhabitants of barbarous or half-civilized countries where, through an imperfect knowledge of the language and the ignorance of the women in regard to the question of age, accuracy is unattainable.

The question of the influence of climate I consider by no means satisfactorily settled as yet. That heat does stimulate into early maturity the uterine system, I believe has been well established; but how much is also due to difference of race and grade of civilization has not been. That the early puberty of the Hindoo is in great measure effected by the custom of early marriage has been claimed by Robertson,* but cer-

*Essays and Notes on Midwifery, London, 1851.

tainly not proven by comparison with other nations inhabiting hot countries, where this practice is almost universal, or even with those of temperate or cold ones, for in them the laxity of morals amongst the lower classes affords in great measure an equivalent stimulus. It is well established that in all hot countries the maximum age of catamenial inception is earlier than in temperate and cold ones, no matter what the race or moral influence may be. How great this fractional difference may be is yet to be determined, or what is the mean average of puberty in our region as compared with another.

In Paris, the maximum age is fourteen in some tables, and fifteen in others, the numbers in either year being nearly the same. In London, the highest number menstruate at fifteen, and from the tables published it would appear that the general priority was in favor of the former. In the large cities of our Middle States no very extensive or accurate tables have been prepared, but it is probable that they would vary but little from those of Paris, the practical difference of precedence being in our favor.

That heat has an influence over menstrual function is very evident from the history of the following case: Several years since, a young lady was sent to me from a hot country to be treated for menorrhagia, with which she had been long afflicted. Soon after reaching Philadelphia her menstrual period came on, and being less profuse than formerly, I determined to try the effects of climate alone. She remained here for three years, was regular, gained flesh, but had no menorrhagia. After her return home the abnormal condition returned and continued monthly, so she re-

solved to return North, where she now is, in better health and flesh than she ever was in her life.

While I believe firmly in the stimulating effects of continued heat upon the menstrual function in young girls, I do not see any reason for holding the same view in respect to infantile cases, which appear to depend entirely upon some peculiar condition of the nervous system, by which not only are the organs of generation precociously developed, but the powers of assimilation largely increased, so that bone, muscle, areolar fat, and nerve force are rapidly produced. Heat has an enervating effect upon infantile subjects until the process of dentition is complete, and hence would be likely to antagonize rather than favor the developments referred to, which most commonly take place during the first years of infancy. I may be in error, but until we have the means of establishing the contrary, theory must be allowed to stand in lieu of facts, for of the numerous reported cases but very few have come from hot countries.

Shortness of stature commonly results from infantile puberty, the ribs and pelvis being developed apparently at the expense of the spine and long bones, although there have been some exceptions to this rule. Where the menses appear at eight, nine, ten and eleven years of age, the growth of the body is not usually interfered with. Velpeau, in his *Midwifery*, mentions the case of a girl in whom the catamenia appeared at the age of eight and a half years, and says that at fourteen she was as tall and robust as the majority of women at twenty. I met in New York with a case of puberty at nine, in a girl who, although robust, was not above an average height, but by the

age of eighteen was a full-sized woman, although her mother was quite short, and her father below medium height.

In conclusion, I would urge upon all physicians the importance of warning parents not to let their children grow up to puberty in ignorance as to the menstrual function, for this may not only lead to great nervous disturbance, but serious disease. I met in New York with a woman of twenty-six years of age having her heart so frightfully diseased that she was not only a great sufferer, but was looked upon by physicians as a living curiosity, whose affection resulted from rheumatic inflammation produced by her having bathed her genitals at the age of thirteen, under the impression that the menstrual flow was a bleeding from some accidental injury, her mother never having warned her of the event, or instructed her as to what she should do upon its appearance. This was a lesson to me which I have made of some practical value whenever occasion required it, and a means of enforcing compliance.