flushed from the violent struggles; the bowels were costive; the urine I could learn nothing about. The os uteri was moderately dilated, but high up; the membranes were entire, the head presenting. I put a dose of calomel on her tongue, gave her several doses of black draught and jalap, administered a stimulating enema, and, on the convulsions recurring, dashed cold water in her face. The treatment appeared to have some effect, as the fits did not recur so frequently, neither were they so violent for several hours. At 5 p.m., however, she had a very severe one. On her coming out of it, I decided to apply the long forceps; and with some difficulty, in consequence of her restlessness, delivered her of a living child, rather more than seven hours from her first convulsion. Flooding followed; and, as the womb did not contract, I introduced my hand, and brought away the placenta. There were no more convulsions, but alarming hæmorrhage. Under the influence of stimulants, she gradually revived, and recovered without a bad symptom. On examining the urine subsequently, it was found to be albuminous.

REMARKS. In connexion with this case, I may state that I have a doubt as to the correctness of the opinion held by some of our authorities, that "the greater success which is said to exist now over our predecessors, in the treatment of puerperal convulsions, arises from bleeding being carried out more freely." The last three cases I have had made excellent recoveries, although no blood was abstracted; and I am inclined to look upon them as approaching to ordinary epileptic seizures, arising from irritation of the nervous centres. Depletion, therefore, is not necessary, unless in cases where the pulse is strong, and symptoms of an apoplectic character are present. I am sure that I have bled too much in my earlier years, when I was more under the influence of authority; yet I should be sorry to condemn the practice altogether, but I would not abuse it by indiscriminately abstracting blood in every case of convulsions.

CASE III. *Induction of Premature Labour in a Case of Narrow Pelvis; Complication with Placenta Prævia: Delivery completed by Turning.* Mrs. M., aged 37, of small stature, had had eight children. Craniotomy was required to extract her first child; the second was born alive, at eight months, and is alive now, twelve years of age; the third was born dead, after a very lingering labour. I was called in by her surgeon to perform craniotomy in the following two labours; and he afterwards dying, I was engaged for the succeeding confinement; but, as I could not attend on her immediately, another surgeon was called in, who also requested me to perforate for him. I urged that, in any future pregnancy, premature labour should be induced at the seventh month; and on January 1st, 1853, I began to give her ergot, in half-drachm doses every four hours, which brought on labour pains the following day. A living child was born on January 3rd, two days from the commencement of the administration of the ergot, though the labour was prolonged and very hard. This child lived for two years. By the same drug, labour was again brought on also at the seventh month, on December 12th, 1856; but this time the child was dead, the frontal bone being greatly depressed.

On Jan. 11th of this year, I began to give the patient ergot, as on that day we calculated that she would be seven months advanced. Before she had taken a second dose, she felt some pain, which gradually increased; and in the night considerable flooding occurred. I saw her next morning, about 10 a.m., and found her faint from loss of blood. She had still a discharge with each pain. The os uteri was dilated to about the size of a crown-piece; the head was presenting very high up; and I could feel the placenta distinctly occupying the posterior third of the os uteri. I thought this would be a case to act upon the opinion of turning in contracted pelvis, as I feared, from the great contraction, that rupturing the membranes and trusting to the natural efforts would probably fail. Under these circumstances, I decided on turning. I had great difficulty in passing my hand through the brim; indeed, I could not have done it if the lateral diameter had not been much greater than the conjugate; and I then feared that I should not be able to withdraw it, together with the foot, from its increased size. But this I found not to be the case. I had the greatest difficulty in extracting the head through the brim; so much so, that I fully expected that perforation of it would be required, but, fortunately, succeeded without.

The child was dead. The patient was very ill for some days afterwards; but she is now going about the house as usual.

REMARKS. I was requested by a surgeon, some time ago, to turn for him in a case of prolapse of the umbilical cord; and he did not inform me previously that there was contraction of the

brim, although he had perforated in her last confinement. But in this case, as well as my own (although the contraction was not so great, for the child was at its full time), I found such difficulty in the extraction of the head, that the circumstances must be imperative to require version to cause me to undertake it in a greatly contracted pelvis, as there is little chance of saving the child from the violent efforts required to extract it. From experiments I have made, I am fully convinced that the conjugate diameter of the brim in Mrs. M.'s case is not two inches.

ON DISEASES OF JOINTS.

By HOLMES COOTE, Esq., F.R.C.S., Assistant-Surgeon to St. Bartholomew's Hospital, and to the Royal Orthopædic Hospital, etc.

IV. LATERAL CURVATURE OF THE SPINE.

AN inquiry has been made of those engaged in the practice of orthopædic surgery, "whether the deviations from the straight line, which are often seen in growing young ladies and sometimes in boys, really require mechanical treatment; or whether they will rectify themselves by the adoption of general measures for the improvement of the health?" In the majority of such cases, remarks a surgeon, I apprehend that there is no disease of the vertebræ, and that the curvature depends only upon weakness of the muscles of the back.

I beg, in reply, to state, first, that the deviations of the vertebral column from the straight line do not rectify themselves, but increase in severity at uncertain intervals through life; and, secondly, that neither bones nor muscles have anything primarily to do with the deformity. It is, as Mr. Tamplin has long since insisted upon, a yielding of the spine through weakness or debility, and especially of the natural fibrous structures uniting the vertebræ.

I have frequently been told in answer to this statement, that "such a patient suffered, to the narrator's own experience, from lateral curvature at 12 or 14; that she grew up, married, and has since had a family—as if that were the *ultima Thule* of woman's existence. The following case may furnish a commentary upon such assertions.

A young married lady, aged 33, consulted me January 6th, 1858, on account of frequent headaches; an aching feeling in the side; a sense of constriction of the chest; palpitation of the heart, which had latterly increased so much that she feared to go out alone, lest she should faint in the streets. She experienced such constant weakness in the back that she was obliged to recline many hours a day; and felt great indisposition to work, although a woman of high education and natural vigour of mind. She had been under the care of many members of the profession, for different ailments connected with the organs of digestion, circulation, and respiration. A very superficial investigation showed that there was lateral curvature of the spine; and, upon examination, I immediately detected double curvature; one in the upper dorsal region, directed with its convexity to the right; the other in the upper lumbar region, in a contrary direction. Now, what was the history of this lady? She had been highly trained mentally; but physical education was deemed scarce suited to her sex. Lateral curvature commenced at 14 years of age. She reposed on couches, and was said to have "grown out of it." She married at 24, and was lost to the sight of her early medical attendant, who could now quote her case as a cure. She bore a child, and had to exert herself a little more than usual; and the lateral curvature, never cured, became more severe. She lost two inches in length. I directed the employment of mechanical supports, and was greatly aided by the patient's own determination to receive the relief thus offered. In three weeks she has gained one inch in length, and will in all probability acquire more. The uneasy sensations under which she laboured have in greater part disappeared.

About twenty years ago, I assisted in the *post mortem* examination of a lady well known in the fashionable world, who died at a very advanced age (84). At the autopsy, a deviation from the straight line was discovered, which astonished more than any one the *femme de chambre* who had attended her for the last forty years of her life. She remarked that she had no idea of the amount of deformity.

A child of six months old was brought to Mr. Tamplin, on account of distortion of the spine. The infant was always crying, and apparently in constant pain. An instrument was constructed to remove the curvature: the child's suffering

ceased; and it has since increased in years, a totally different being.

I examined, within the last week, the body of a newly born infant, in whom a strongly marked double lateral curvature existed *in utero*. The preparation is preserved in the Museum of the Royal Orthopædic Hospital.

Thus, then, lateral curvature may commence *in utero*. When once established, it seems to go on, if unchecked, at uncertain intervals, and at different rates of progress. It still continues a progressive disease, even at 80 years of age; and is attended by a variety of distressing symptoms, referrible to the displacement of the different viscera of the thorax and abdomen.

A medical friend once asked me, in a tone of scepticism, if I thought that the thoracic or other viscera really underwent such change of position as to give rise to the symptoms usually associated with lateral curvature. I referred him to Bouvier's plates, where he saw represented the displacement of the heart; the lung on the side of the convexity spread out into thin concave layers; the lung on the concavity dropped into an irregular hollow space. He saw sufficient to remove his incredulity. I may further quote the following passage from Bock, in whose work the visceral displacements of deformed persons are tersely and graphically described:—

"Deformities of the trunk, especially of the thorax, exert no inconsiderable, but often a very injurious influence, on the functions of internal parts. The following are the chief abnormalities found in persons suffering from curvature of the spine.

"(a) *Vascular System*. Distortions and twistings of the arteries (sometimes with deposits), especially of the aorta, the carotid, and the subclavian. The veins are dilated and gorged with blood, either from pressure or impeded pulmonary circulation. The heart is displaced in various ways, and is dilated and hypertrophied in its right half; in the left one, not unfrequently, defective mitral and aortic valves. The conditions resulting from these changes are, congestion of blood in the venous capillaries, dropsical effusions, shortness of breath and palpitations of the heart (especially upon going up stairs), cyanosis, chilliness, and numbness of the extremities.

"(b) *Respiratory Organs*. The trachea is not unfrequently displaced, bent, twisted, squeezed between the vertebral column and sternum; sometimes compressed by a goitre (hence the audible sibilous respiration, and the attacks of suffocative dyspnoea, especially when catarrh is present). The bronchi may be compressed or displaced. The lungs are squeezed together between diaphragm, heart, and vertebral column; hence their tissue is condensed, or gorged with blood, or emphysematous. Catarrh, mental excitement, and bodily exertion, induce in those suffering from lateral curvature, an amount of dyspnoea aggravated to the point of suffocation.

"(c) *Organs of Digestion*. Esophagus often bent or compressed, producing difficulty of deglutition; the stomach and intestines variously twisted and distorted, often narrowed or distended by gases. The liver is displaced, hyperemic, or atrophied. Persons with curvature are often visited with so called abdominal derangements.

"(d) *Urinary and Sexual Organs*. The kidneys are often found displaced, with impeded excretion of the urine. The bladder and uterus are displaced and compressed. Dyscrasia, disordered menstruation, sterility, hysteria, find therein their cause.

"(e) In consequence of the impeded return of blood from the head, the usual signs of congestion show themselves (vertigo, buzzing in the ear, bleeding from the nose, apoplexy). When the spinal curvature is considerable, the spinal cord may be more or less paralysed." (*Pathologische Anatomie*, pp. 77-8.)

In lateral curvature, the result of debility, the spine usually makes one primary curve extending from the upper dorsal to the middle or even inferior lumbar region; but, as the deformity increases, the necessity of a compensating curve arises, in order that the upright position of the body be maintained. Hence a curve, with the convexity directed towards the left, forms at some variable situation in the lower dorsal or upper lumbar region.

To the question, then, often put, Which curve is the first in a case of double lateral curvature, the upper or the lower? the reply would be, the upper; inasmuch as it represents the remains of the primary sweep, extending the whole length of the vertebral column. For this explanation I am indebted to Mr. Tamplin.

But it must never be forgotten that, even when lateral

curvature commences *in utero*, all the parts about the vertebral column are perfect; every muscle, ligament, and bone, is as well developed as in the case of "congenital club-foot". Of these points I had a striking example in a case of congenital skoliosis (lateral curvature) from pressure *in utero*, the particulars of which shall be given in another communication.

[To be continued.]

ON THE MORTALITY OF INFANTS IN FOUNDLING INSTITUTIONS, AND GENERALLY, AS INFLUENCED BY THE ABSENCE OF BREAST-MILK.

By C. H. F. ROUTH, M.D., Physician to the Samaritan Free Hospital for Women and Children; late Physician to the St. Pancras Royal Dispensary; etc.

PART II.

[Concluded from page 123.]

7. *Where a wet nurse to tend a child exclusively cannot be met with, and it is conceived that the circumstances of a child's case still need that human milk should be given, we must act otherwise.* There are, fortunately, some women who have both milk which is good in quality and excessive in quantity. This fortunate peculiarity is usually found in very young women. As before stated, it contains a larger quantity of solid matters; and hence, conjoined with a poorer milk or artificial food, it may so far suit the child. I know it is a common opinion that no one woman can nourish at the same time two children. I believe this is not always correct. Certainly, in the vast majority of cases, where children are artificially assisted by other milk as supplementary, she will be able to do so. I know it is, again, a popular prejudice, that two milks must not be mixed, as they will be sure to disagree. This is, I believe, the opinion also of many well informed accoucheurs; yet I venture to disbelieve it. In the Foundling Hospital, where children are sent into the country to wet nurses for the most part married women, with another baby of their own to suckle besides, the following is the mortality, as given us in Mr. Brownlow's book before referred to.

Out of 100 children during the first five years of their lives, received at two separate periods, viz., from May 1835 to May 1837, and from May 1837 to March 1839, Mr. Brownlow showed the following mortality at the Foundling Hospital.

	1st period.	2nd period.
Deaths in first year of their age	12	9
Deaths in second year of their age	5	10
Deaths in third year of their age	2	2
Deaths in fourth year of their age	0	0
Deaths in fifth year of their age	1	0
	20	21

The causes of death were—convulsions in 9; diseases of membrani glandia, 5; water on brain, 4; inflammation of bowels, 4; inflammation of lungs in 3; malformation of chest, 3; diarrhoea in 3; croup, 2; scarlet fever, 2; hydrocele, atrophy, bilious vomiting, scrofula, whooping-cough, teething, and breaking a blood-vessel, of each 1. This is the mortality in the country. The usual mortality is higher.

This result I think sufficiently favourable to justify our adoption of the plan. I am happy to learn that the celebrated Manchester accoucheur, Mr. Robertson, is in the habit of carrying out the same plan in that city, where breast-milk is needed, and the mother of an infant cannot supply it, to have a married woman, who suckles another child, to call twice a day to feed it.

There is but one more point I wish to allude to here, and it is the choice of country nurses for town children. I cannot help speaking in strong terms of reprobation of this custom. It almost invariably fails. A nurse accustomed to a country life, open air, and exercise, is scarcely likely to thrive in a close town, where she leads that sedentary life at home so necessary in London and other great towns. *Vice versa*, the more exposed condition of life may not agree with a town nurse. Both will be likely to suffer. A town nurse, if healthy, should therefore be preferred for a town child, a country nurse for a child in the country. If the town child, however, is removed into the country, he comes under the second category, and will thrive better with a country nurse.