

KANGAWIANA.¹

BY

ALBERT S. ASHMEAD, M D.,
New York.

THE Japanese are in obstetrics the most successful people on earth. Nowhere do we find less mortality, or less failure of any kind, in childbirth. Yet the theories laid down in the text books of the Japanese are not as admirable as their practical success. Nowhere do we find such good work done in spite of such bad methods. Even before the time of the first Kangawa, who is considered as the great reformer of Japanese obstetrics, this success was notable; and it is even to be supposed that it was more complete still, for with Kangawa came the meddling interference of pseudo-physicians ignorant of anatomy and physiology.

In the absence of any scientific knowledge the Japanese have always had this advantage—that childbirth accomplished itself with an ease that we do not find anywhere else. They are favored in this by their anatomical structure. The Japanese women have no deformed pelves, and their abdomens have never suffered from the pressure of the corset. Moreover, thanks to the existence of the concubinate, the pregnant woman is relieved from uterine troubles due to sexual excesses. The gentle care taken of the pregnant woman cannot be conceived by any one who has not lived in Japan. As a consequence, miscarriages are much rarer than with us, and hence many accidents of childbirth due to previous miscarriage are also of rare occurrence.

Down to Kangawa's time the whole obstetrical business of the country was done by women whose knowledge had been transmitted by word of mouth from generation to generation, like the poems of Homer. Whatever science there is in Japanese obstetrics is laid claim to by the Kangawas. No credit whatever

¹ Communicated to the Sei-I-Kwai, or Society for the Advancement of Medical Science in Japan.

is given to the midwives of Japan and their system of compulsory isolation of the puerperæ, which for ages had prevented the infection of the lying-in chamber.

In a general way Kangawa rendered no service. On the contrary, his physicians, going from patient to patient, added the dangers of infection to those of childbirth. What he did was this: he taught a salutary interference in cases of extreme danger and impossible natural labor, where the midwife would have helplessly thrown up the sponge.

One fact will suffice to give an idea of the *passiveness* of Japanese obstetrics. They knew nothing of the functions or even the existence of the uterus. Their treatment consisted of internal medication, and such medicaments as can be of some use were unknown to them, even ergot.

The original Kangawa (Sigen) appeared in 1765, or rather his book, the "San-ron" (description of birth), appeared for him. He was a professor of acupuncture, and his whole doctrine is based upon it, and his knowledge and exploitation of such portions of the human body as are considered most important in regard to acupuncture, rather than on any anatomical knowledge or experience. Ten years later his adopted son, Gengo Kangawa, published the "San-ron Yoku," which is a collection of notes explanatory of his father's book. The Kangawa family, after these brilliant beginnings, did not allow the obstetrical sceptre to drop from their hands. We do not know whether the third Kangawa was also an adopted son of the second, and if the race was regularly continued by adoption, for which system the Japanese have a singular predilection. It seems to me, at any rate, that so much genius could hardly be transmitted through five natural generations.

The other representatives of the illustrious race are: (3) Mitsu-sada Kangawa, the inventor of the fish-bone loop; (4) Mitsu-taka Kangawa, who found the use of the cloth; (5), Mitsu-nori Kangawa, with whom the glory of the family will probably be extinguished, for European obstetrical science will be, according to all probability, the last adoptive child of the Kangawa.

I will now describe in a few pages the kind of wisdom which is contained in the first Kangawa's monumental work, the "San-ron."

It is divided into four parts: 1. Development of the embryo and treatment to be pursued during gestation. 2. Choice

of the lying-in chamber and position of the puerpera. 3. Post-partum treatment. 4. Position and bandaging after birth.

1. The first section offers nothing of any value regarding the development of the embryo. He shows simply the knowledge of symptoms which the midwives possessed before him, and which every woman who has borne a child is likely to possess. His examination of the three loci, the finger-tip pulse, the wrist pulse, and the crural pulse, for the determination of pregnancy, is sheer nonsense. So is his palpation of the abdomen to discover the presence of a spherical, smooth body of the size of a chestnut, for the same purpose. The absence of the menses as a sign of pregnancy can hardly be considered a discovery of Kangawa. What sense is there in his "wise provision of Nature" endowing the back of a pregnant woman with broadness and curve? Perhaps he deserves some credit for being the first (if he was it) to contradict that old doctrine according to which the child executes a somersault at the moment of birth. Close observation must needs lead to the knowledge of the regularity of a vertical position at birth, and of the irregularity of the breech position. The same may be said of the recession of the median line of the abdomen in geminal pregnancy. All that he says about twin and triplet births is true, excepting his assertion that when twins are situated with both their heads upward or downward they have one common placenta. We know that that is not so. As an example of the singular fancy to which the old obstetrician was a prey, I give the following Kangawism: If in the third month of gestation an abortion takes place, there is found, in spherical form, a lump of the size of a chestnut, which shows on its section five different colors—which proves that man is the embodied essence of the five elements: water, fire, metal, wood, and earth.

Kangawa's lack of anatomical knowledge is shown by his assertion that the flexing of the thigh of the mother pushes the thighs of the child upward, while from above the fetus is shoved downward by the stomachal band of the mother, and that this is the cause of the transverse position. Of course the uterus is entirely ignored. The same ignorance of the very existence of the uterus appears in Kangawa's opinion that up to the ninth month the position of the fetus is such that the child can support its neck against the upper limit of the os pubis. He adds that in the tenth month (Japanese calendar) the head assumes a

deeper position, being then placed behind the os pubis; if now the wall of the abdomen is palpated, and it is found that the hand can no longer penetrate between the os pubis and the ball (gravid uterus), the birth is to be looked for within ten days. The fetus then moves daily, and mensually descends by degrees until at last it issues forth. Of course these fetuses peeping out from behind the os pubis are a singular conceit, and remind one of the smart little cherubs so comfortably established for contemplation in the Dresden Madonna.

Addressing himself to the anomalous transverse position, Kangawa delivers himself of a most extraordinary piece of hocus-pocus. He speaks of the fetus straying about in the body, perplexed by the problem of choosing between the hardship of a position which brings him in contact with excremental lumps, and another which exposes him to maternal intestinal winds: he hits upon a medium—hence the transverse position.

His rules for the reposition of the fetus bring the physician in strange and perfectly useless contact with the person of his patient: there is kneading of the breast, putting his knees (bare, as Japanese knees are) against the left side of the woman, putting her arm around his neck, squeezing of her knees between his, rubbing her nates and hips; the latter must be done sixty or seventy times, and accompanied with a peculiar clapping noise requiring a special study. After that, says he contentedly, the woman is quite comfortable. This operation, to keep the mother and child in good health, must be repeated every morning from the fifth to the sixth month. This energetic manipulation, according to Kangawa, will suppress in due time "the melancholy fact of embryonal decay, and unbounded happiness will await the progeny." In Japanese, at least the Japanese of Kangawa, "unbounded happiness" means evidently the advantage of being born with all one's limbs straight. Kangawa flatters himself, in his famous "San-ron," that he has made a special step ahead in obstetrics: what I have just described is the step.

In his second section, referring to the "choice of a bed," he discusses the anatomical position of the fetus, as he conceives it, and asserts that male and female fetuses have the same position in the womb, face backward—which is very true and obvious. But he adds that when the child is born and reaches the mat of the floor (where Japanese women are always confined) the

male lays himself on the abdomen, the female on the back. This, of course, is another form of the popular superstition according to which male corpses in the water float on their bellies, female corpses on their backs. Kangawa could not help knowing that this assertion was contrary to the facts; but the old charlatan was not superior to the temptation of doing something to strike and please the phantasy of his public—*his nam plebecula gaudet*.

His description of natural birth is quite lengthy and very accurate; only his anatomy is at fault again when he says that the symphysis pubis opens at the moment of the passage of the head. When the uniting bone does not open, says he, it is a bad case. Did I not say in the beginning that Japanese obstetrics was the most felicitous on earth? Here we have, at least in Kangawa's mind, symphysiotomy performing itself spontaneously without any help of Galbiati's knife.

The manipulations of Kangawa are five in number. The first regards the *crouching of the puerpera on the mat*. The girdle is removed and she sits with her heels on both sides of her body. The physician makes her bend forward, put her arms around his neck, and support herself on his shoulder. He then wraps his right hand in a towel, and reaches between both thighs of the woman and supports the anus with his hand; his left arm encircles her body. With each throe he elevates the body of the woman with his left arm. Kangawa here gives minute directions, and judicious ones, as to the way to determine by index and middle fingers the position of the child. He shows how the labor may be induced by rupturing the bag of waters with the finger nail. The perineum, he says, must not be torn, but supported with the right hand, which, he adds, is the most important point of that stage which is called "sitting on the mat."

The second manipulation is called *delivery of inverse position*. If a foot or heel presents itself it must at once be pushed back. The woman is made to lie on her back upon a bed made high with pillows; her thighs are widely separated. It must be determined whether the foot in question is the right or left one; this is determined by the position of the big toe. The other foot is then sought for, and both are brought down and delivered with strong traction by the physician, who uses his knees as a point of support. Kangawa here says that should the foot not be pushed back, or should the delivery have advanced

so far that it cannot be pushed back on the arrival of the physician, the one foot by itself must be delivered, the child's body following, the other leg flexed upon it. If this method is not used in good time, mother and child are lost, and, Kangawa adds sententiously, vain regrets will be left to the survivors.

Should the child be already dead and its neck be impeded by the uniting bone so that the after-coming head cannot be delivered, the woman, according to Kangawa, must be made to lie on her stomach and to keep her thighs apart. Then the child is wrapped in a cloth and seized tightly with the left hand. Beat the neck with the thumb of the right hand at regular intervals on the front or back side; rise and pull out the child. All that is not bad and might be imitated, except, of course, the beating.

Kangawa's delivery of a breech case is also good, if seen early enough. Press the child backward, then by kneading the abdomen make it stretch its legs, and pull it out. Should it be dead the deliverance is made with an instrument.

In all these operations, excepting the delivery of the chin hooked upon the symphysis pubis, the child must be pulled out forward and upward around the pubic arch, and not straight downward. The raising of the operator's own body is here of importance. It must not be forgotten that the Japanese physician, standing over his patient, who, in difficult delivery, is lying supine on the floor, has a considerable advantage over our own physicians.

The third manipulation is the *correction of a transverse position*. The physician, having, by feeling the fingers or arm or elbow in the uterus, ascertained the transverse position, presses the presenting part backward, then seizes the fetus through the abdominal wall with his right hand and bimanually arranges a straight position for the fetus. This clever management certainly does great credit to Kangawa.

The fourth manipulation concerns the management of twin births. All twin births, except when both are in inverse position, can be brought to a happy termination. His rule is, when both heads are lying forward, to deliver the foremost first, to push the other upward, and, after the first child is delivered, to bring down the second head. He delivers his woman, placing her upon that side in which the posterior child's head lies, which allows the first child to slide on an inclined plane. This is worthy of scientific medicine, and we might with ad-

vantage take the hint from the old Japanese master. Inverse twin births are treated like single inverse births. Kangawa says that if both heads lie downward, both children being dead, and if both heads together move toward both thighs of the mother, it is uphill work to bring the heads into a regular position; yet it is necessary to act exactly as if the children were living.

The fifth manipulation is called the *life-restoring method*. This is not, as the reader might be led to expect, anything like the raising of Lazarus from the dead. In fact, strange as it may appear, it is impossible to say what it is. At any rate, Kangawa refuses to describe it, under the flimsy pretext that it is too difficult to describe, and that therefore it must be transmitted simply by oral tradition from master to pupil. It is fated to be and to remain a professional mystery. There is no doubt that Kangawa's reluctance to revealing this part of his business was caused by the awful character which the instruments employed—two hooks, one blunt, the other sharp, destined to seize the child—gave to the operation. This operation, of course, remained a mystery, as the doctor and his patient were screened from each other's view doing the whole performance by a suspended blanket. The hook is known now to all midwives; but this fifth operation has, as the old quack desired, remained a secret.

The third section refers especially to confinement—its bearing on prescriptions for cutting and ligating the umbilical cord, and the delivery of the after-birth. The danger from a retention of the placenta is pointed out. Various conditions, such as giddiness, following parturition, are considered. White plums and black beans are not to be eaten during confinement, according to the superstitious fear which the Japanese feel for the meeting and contrast of these two opposite colors. If the milk does not flow at once after birth, the mother is to wait thirty days; what she is to do after that does not appear. The only bathing of the genitals allowed to lying-in women, after birth, is the natural bath furnished by the flow of the uterine discharges, until fourteen or fifteen days have elapsed. Kangawa strongly condemns the warm salt baths taken the sixth day after delivery, according to the old popular custom. After eight days he wipes impurities from the genitals with a piece of linen dipped in water. The body up to this time has been

strictly protected by the clothing against agitated air which might be fraught with impurities.

The author in this chapter discusses also the other complications connected with confinement—puerperal phthisis, pains of various kinds, paralysis of the lower extremities (from enforced sitting in that remarkable institution of the Japanese, the puerperal stool), convulsions, violent diarrheas, costiveness, retention of urine, laceration of the perineum (for the mending of which he advises crooked position of the legs), mania, precordial anxiety, dropsy, nocturnal sweating, cramps of the eye muscles, apoplexy, and fever. For the delivery of a retained placenta Kangawa declares—moved thereto by that genius of quackery which was certainly very strong in him—that the method is so difficult that he will not try to describe it, either orally or in writing. His grief at this inability is the greater that fifty per cent of the women with retained placenta die. But he will try to teach it to his disciples directly, and exhorts them not to let the method fall into oblivion.

Post-partum hemorrhage, says Kangawa, may take place immediately after the delivery of the placenta, or forty or fifty days later—even a year later, he adds with Japanese exhaustiveness. The blood breaks out with the rush of diarrhea, and, if not stopped, he affirms that the effusion will be fatal. The physician takes his position at the right side of the patient, causes her to stretch her legs, presses together with his right leg the lower part of the back and the thighs of the woman, stops closely the vulva, and remains motionless in this position, without letting go. Meanwhile a strong decoction of ginseng is prepared. After this has been taken the woman is made to lie on her right side with elevated head. Thus she may be saved.

In order to impress his pupil with the urgency of the crisis, Kangawa tells him that should the call come while he is at table, his duty will be to throw away forthwith the eating sticks and run to his patient. This gives the author a new opportunity for considering the use of the stool, the boards of which, being locked about the body of the patient, interfere with the necessary manipulation.

Kangawa's remedy for the inversion of the uterus is in no way different from our own; only, in describing it he shows again his anatomical deficiencies, for he speaks of it as a reposition of the intestine. The woman is first placed in a dorsal

position, the physician kneeling over her, her arms about his neck and his left hand behind her; he gradually raises the woman to a semi-sitting posture, while he thrusts the mass back with the palm of his right hand. If the mass is dark in hue or gangrenous a hempen ligature is applied, whereby it will fall out in due time, without, he adds—perhaps too sanguinely—any harm being done.

His reposition of a prolapsus ani is thus performed: Let the woman stand against the wall or against a beam in such a way that the tip of her nose, her breast bone, and her toes touch the wall. If she cannot stand independently, let somebody support her. The physician presently steps behind her, kneads the nates with both hands, covers the prolapsus with his hand, and gradually pushes the rectum in—which will prove, he says, quite an easy performance.

In the fourth section of the monumental work the author gives his opinion of the puerperal stool; it is entirely condemnatory. When the book was written it was the general custom to have the lying-in woman sit in a peculiar chair, composed of five boards, one of which gave support to the back, two on the sides, the fourth in front, the fifth forming the bottom. These boards were movable in grooves, so that they could be changed. After the delivery of the placenta a straw mat or quilted blanket was put upon the chair, the woman was made to rise and to sit upon the stool. There she had to sit for a week. During all that time she was not permitted to sleep, and as soon as her head was seen to bend forward a watcher compelled her to raise it. Only after the seventh day was she relieved from that torture. All the puerperæ, even the empress, were fettered with those shackles; only the very lowest class, the fisherwomen and the wood-hewers in the mountains, enjoyed freedom. Kangawa found in the chair eight injurious characters:

1. The danger of syncope from getting up and walking to it.
2. The danger of hemorrhage from standing or sitting upright.
3. The impossibility of putting the woman in a supine position with the necessary quickness in case of bleeding.
4. The pressure of the stool producing paralysis of the lower extremities.
5. The lack of rest and the enforced vigil.
6. The fever induced by sleeplessness.

7. Inability to return a prolapsus, and fever resulting therefrom.

The eighth objection refers to the temptation to which the puerpera is exposed, by seeing her watchers satisfy their natural wants, to violate herself the dietary rules.

He deploras also the use of the abdominal bandage, a silk sash worn by all pregnant women after the fifth month. This has been the custom since the middle ages. Kangawa sees in that bandage a mischievous interference with the free action of Nature. If you plant a bamboo reed under a house (a Japanese house, which stands, as it were, on a platform) it grows to the height of some inches, then it bends sideways, and only when it has reached the border line of the basement it starts upright into the air. Thus also the natural growth of the child deviates from its right direction if it is tampered with by artificial obstruction. As the fetus holds its head downward the infantile vapor (vital energy) by no means, as the defenders of the bandage suppose, ascends to the upper parts of the mother's body. On the other hand, as these ligatures are generally made very tight, there results a congestion in the skin which enwraps the fetus and covers the part which lies near the maternal breast, that is, the arms of the child. Now, as by the tight bandage the congested blood is compelled to stay there a long time, the descent of the embryo bag is made more difficult, and even violent bleeding or vertigo may ensue. Moreover, when the mother moves, the child is prevented by the bandage from adapting its own position to that of the mother, and an oblique position is the consequence.

I pass now to the other Kangawas. They were the obstetricians of the imperial family in Kioto. To remedy the cruelty of the pointed hook—the Japanese forceps, so to speak, which always made an ugly wound on the occiput or body of the child—Mitsu-sada Kangawa, the third of the glorious race, invented several instruments, for the occiput of a prince imperial could not be injured. This invention served to supply important deficiencies in the use of the simple hook, but the loop that made part of it left occasionally bloody places on the face. To obviate this Mitsu-taka Kangawa, the fourth of the race, contrived another method, which he used at the birth of an imperial prince in 1832. In his operation a silk cloth, broader than the loop, and which covers the entire head, is used, and traction

made upon it in a peculiar way. The head thus is led forth more gently than by the other method.

The last Kangawa, Mitsu-nori, invented a means of performing version in transverse position. It is accomplished by means of fillets passed about the body, with some other contrivances, and by the traction made upon these fillets while the shoulders of the child are pushed back by a fish-bone plate.

This is what the Kangawa family have done.

I finish this sketch with a passage which has struck me as being very curious, as it shows how cleverly the old fox knew how to cover with the mantle of modest discretion some practices useful and even necessary, but very distasteful to the families of his patients: "These operations must be made in a somewhat stealthy manner. The woman accordingly must lie on her back and stretch her legs. The physician sits at the foot end of the bed built with blankets upon the mat, and covers the lower part of the woman's body to the toes with a blanket. Now he so stretches out his legs between the legs of the woman that the soles of his feet are set against her body; he can thus hold the legs of the woman apart with his own legs and make all the manipulations beneath the blanket. Usually the midwife and the parents, especially of the woman, demur at the use of the instruments, because they do not know them and are afraid of them, as they are not as yet in general use. Therefore the physician, if he wants to use any instruments, puts them, before he enters the room, under his garment, whose sleeves, accessible from the inside, serve as pockets. He thus warms them, and, unperceived, pulls them out under the blanket and uses them. After the performance of the operation he is to keep silent as to what he has done."