

## An Address on Obstetrics and Gynæcology in the days of the Patriarchs.\*

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My particular reason for thinking that the subject on which I am about to address you might be of interest to you arose recently when I was delving in the Bible for anthropological evidence of endocrine influence, such as might bear upon the matter of the "hirsute man of action" and "the smooth man of thought," and whereas I might have mentioned Nimrod, Goliath, Samson, Judith, or Jezebel, each of them respectively illustrative of hyper-adrenalism, hyper-pituitarism, and hyper-thyroidism, I chose rather to quote the birth of Esau and Jacob which, from an Anglo-Saxon point of view, cannot fail to be of interest to those of us who dwell in the Delta of the Ganges.

In my search it occurred to me that it might be of more than ordinary interest to observe, from an expert point of view, the references in the Rabbinical writings to Gynæcology and Obstetrics, and to this end I have used the Moffat Translation, the Revised Version, and the Douay Authorised Translation.

I do not intend to stray far outside the path of my title, but, perhaps it may entertain those of you who follow work at the Tropical School of Medicine to study that wonderful description of bacillary dysentery in the Second Book of Chronicles, Ch. 21, v. 15 and 19, and then to pass on to the picture of the oncoming of the Monsoon in the First Book of Kings, Ch. 18, v. 43-45.

### STERILITY.

Throughout the Old and New Testaments there are multiple references bearing on the psychological importance of the possession of children, for children are regarded as Divine gifts, *vide*, Gen. Ch. 4, v. 1; and Ch. 33, v. 5; and Ps. 127, v. 3.

This is a natural conclusion in a developing country where more hands meant better crops, and especially in the case of weak tribes, in which man-power was much needed for continual wars.

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It is not surprising, therefore, that barrenness is looked upon as a reproach, thus, Sarah was despised by Hagar, her handmaid, in Gen. Ch. 16, v. 4. for Sarah was primarily sterile and only later conceived after a long period of amenorrhœa, *vide*. Gen. Ch. 18, v. 11.

Again, Rachael in Gen. Ch. 30, v. 1, through envy of Leah cried, "give me a child or else I die"; and in 1, Sam, Ch. 1, v. 6, we find Hannah's rival taunting her because the Lord "hath shut up her womb." In St. Luke Ch. 1, v. 25, it says that "Elizabeth rejoiced when the Lord took away her reproach among men"; and again in St. John, Ch. 16, v. 21, our Lord refers to "the joy of a woman at the birth of a man child into the world."

It is of considerable interest to find such classical examples of elderly primiparæ and note that presumably in those times these children were born without trouble to either mother or child; whereas to-day circumstances and experience so frequently indicate Cæsarean section for such cases. The elderly primiparæ mentioned are Sarah, (Gen. Ch. 21, v. 2,) who bore Isaac; Manoah's wife, (Judges 13, v. 24,) who bore Samson; Hannah, (1, Sam Ch. 1, v. 20,) who bore Samuel; The Shulamite woman (11, Kings, Ch. 4, v. 17); and Elizabeth, (St. Luke Ch. 1, v. 36) who bore John, and in whom "quickening" at about the 20th week is first mentioned.

In connexion with sterility it may here not be out of place to enquire how it is that the Jews, despite all persecution, are now, as then, the most prolific people in the world. From a Biblical point of view there would appear to be two reasons, which, in those days were empirical, based on minute observations of the priests, but to-day are proven to have a scientific explanation.

The first reason is in the diet. This consisted of substances perfect in A.B.C. and E. vitamins, for instance, read David's entertainment (11 Sam. Ch. 17, v. 28) of "wheat, barley and meal, and parched corn, beans and lentils and olives, honey and butter and sheep and cheese of kine"; and that of Solomon in 1 Kings, Ch. 4, v. 22, which is much the same, included "fatted fowl and fatted oxen."

It is not necessary to refer to the countless enumeration of fruits and vegetables including cucumbers, melons, leeks, onions, and garlic, though as a sidelight it is perhaps interesting, in view of the modern sugar fermentation, that "a lump of figs" was prescribed by Isaiah as "a plaster" for Hezekiah's boil, (11 Kings Ch. 20, v. 7.).

From the above diet it would therefore seem that the work of Mellanby, McCarrison, Plimmer, and Marshall in Great Britain,

and Dickinson in America, on the effects of food on reproduction and health were empirically anticipated by the patriarchs; and that the maxim "the vitamins are to the endocrines what the endocrines are to the economy," was instinctively realized by the Jewish people. One must, however, admit from the story of Rachael and Leah that superstition or medicinal properties apparently attached to mandrakes, (love-apples in Moffat), for in Gen. Ch. 30, v. 14, it is written "Reuben going out at the time of the wheat harvest found mandrakes which he brought to his mother Leah, and Rachael said, 'Give me part of thy son's mandrakes,' and Jacob slept with Leah that night and she conceived"; and later also "Rachael conceived."—Mandrake is *Mandragora Autumnalis* (Solanaceae), and is an antispasmodic.

The second reason for the multiplication of the people of Israel is to be found in the Book of Leviticus, in which those rules for coitus are laid down which are of such extreme interest in view of the recent work of Wilfred Shaw, Novak, and others on ovulation; for it has been proved that ovulation does not occur until the 13th to the 17th day of the menstrual cycle, counting the cycle as beginning on the first day of the period. Now coitus is forbidden to orthodox Jews before eight days after the last day of the period, that is, coitus is not permitted until approximately the time of ovulation.

Moreover, with reference to the above rules as regards coitus, and menstruation, it is a remarkable fact that the orthodox Jewish woman is almost immune to cancer of the cervix uteri. Is this immunity the result of circumcision and therefore of greater cleanliness, or is it because their code permits no extraneous organisms to enter the vagina during the first eight days after the menstrual period—that is, during a time when the vagina is alkaline and its resistance to infection therefore least; for we now know that the acid protective flora of the vagina and cervix are not normally actively present until the seventh or eighth day following menstruation.

May one not therefore suggest that the ultramicroscopic organism of Gye and Barnard or the "individual potential virus" is neutralized in the orthodox Jewess by these rules for coitus laid down in the Mosaic Laws; for, one would expect in a community in which large families are the rule rather than the exception, that cancer of the cervix uteri would be particularly common.

Moreover, in a people bound by such laws of cleanliness, it is not surprising to find that there are very strict prophylactic rules for prevention of infection in women; for instance, in Lev. Ch. 15, it is laid down that "the man that hath an issue of seed

shall be unclean and then shall he be judged subject to this evil when a filthy humour at every moment cleaveth to his flesh and gathereth there. If he who suffereth this disease be healed, he shall number seven days after his cleansing and having washed his clothes and all his body in living water he shall be clean." It is probable that this is the first mention of venereal infection in the Bible.

#### LABOUR.

Considering the family character of the Biblical narrative, it is perhaps surprising that there are not more accounts of abnormal parturition. A possible explanation of this fact may be that, with a healthy population and healthy diet, difficult labour did not occur very often. There are, however, references to traumatic miscarriage and abortion in Ex. Ch. 21, v. 22, and Num. Ch. 12, v. 12.

Labour was in the hands of midwives probably of the Sarah Gamp or Sage Femme type, who did little beyond ironing the vagina and giving kindly advice; though it is obvious from the reference (Job. Ch. 26, v. 13) "his obstetric hand brought forth the winding serpent," that operative midwifery, probably version, was practised.

In Ex. Ch. 1, v. 15, it is written "and the King of Egypt spoke to the midwives of the Hebrews, commanding them that, when they attended the Hebrew women and saw them on the birth-stool they were to kill the child if a male and let it live if a girl"; and when they did not obey him they answered the King's enquiry by saying, "because the Hebrew women are not like the Egyptian women, they are brisk creatures and delivered before ever a midwife reaches them." The Revised Version translates this passage "the Hebrew women are skilful in the office of a midwife and are delivered before we come to them."—the "B.B.A." (born before arrival) of the modern student.

It is, however, pleasing to recognize that then, as now, a good midwife was treasured and flourished exceedingly, for one reads "God dealt well with the midwives and built them houses."

The meaning of the "birth-stool" is of interest, for it would seem that postural treatment of labour cases was regularly practised by the Ancients. Indeed, the squatting position is that used to-day in the East for a hard labour, and there is no doubt of its efficacy as I have myself noted in right occipito posterior cases. The purchase given to the patient by her arms round her knees in the squatting position promotes flexion, rotation, and descent of the head, and this presumably is the meaning of Gen. Ch. 30, v. 3, "go in unto her that she may bear upon my knees,"

and Job Ch. 3, v. 12, "why received upon the knees". For then, as now, among many primitive people the travailing mother was placed either squatting between the knees of the midwife, or in a kneeling position bending over her thighs.

The birth-stool, or *Kreisstuhl*, as the Germans call it, can be seen in France and Germany to-day, just as it can be seen in parts of India, Japan and China, and it certainly has mechanical if not aesthetic advantages.

In a work published in 1637 called "The Expert Midwife" by James Rueff, we have an exposition of the use of this stool, which is of historical interest. "Let the stoole be made compasswise, under-propped with four feet, the stay of it behind bending backward, hollow in the midst, covered with a blacke cloth underneath, hanging downe to the ground, by that means the labouring woman may be covered, and the other women sometimes apply their hands in any place, if necessity require. Let the stoole be furnished and covered with many cloths and clouts at the back and other parts, that the labouring woman receive no hurt of the infant anywhere, strongly kicking and striving because of the pains, stirrings and motions of the mother. After the labouring woman be placed in her chaire about to be delivered, the midwife shall place one woman behind her back which may gently hold the labouring woman, taking her by both the arms, and if need be, the pains waxing grievous may stroke and presse downe the wombe, and may somewhat drive and depress the infant downwards. But let her place other two by her sides which may both, with good words, encourage and comfort the labouring woman, and also be ready to helpe and put to their hand at any time. This being done, let the midwife herself sit stooping forward before the labouring woman and let her anoint her own hands and the womb of the labouring woman with oile of lillies of sweet almonds and the grease of a hen mingled and tempered together. For to do this doth profit and help them very much which are gross and fat and them whose secret parts are strict and narrow, and likewise them who have the mouth of the matrix dry, and such women as are in labour with their first child." From this description we may picture the use of the birth-stool in the days of Moses.

The first record of a midwife attendance is in Gen. Ch. 38, v. 27, and is of great interest, for it represents classical treatment, and is the first published case of spontaneous evolution with live uniovular twins and ruptured amniotic sac, or sacs, which according to Whitridge Williams, is very rare, only 44 cases being on record. It is interesting to note that Viardel in the 17th Century first observed this and stated that, when twins were of

the same sex they were usually enclosed in a single amnion, whereas twins of different sexes were separated by a partition wall; he expressed the belief that Providence took this means of guarding their morals *in utero*!

The passage in the Bible referred to above, runs "Thamar appeared to have a big belly, and when she was ready to be brought to bed there appeared twins in her womb, and, in the very delivery of the infants, one put forth a hand whereon the midwife tied a scarlet thread, saying, this shall come forth the first; but he, drawing back his hand, the other came forth, and the woman said why is the partition divided for three, and therefore called his name Phares, afterwards his brother came out on whose hand was the scarlet thread, and she called his name Zara." This case is of additional interest for it might appear from another interpretation of the text that this is the first recorded case of complete rupture of the perineum, and as there is no further mention of Thamar it is probable she died of puerperal sepsis.

There is only one other reference to twin labour and it gives one food for thought. It is in Gen. Ch. 25, v. 21-26, "and Isaac besought the Lord for his wife because she was barren, and He heard him and made Rebecca to conceive, and the children struggled in her womb and she said, "If it were to be so with me what need is there to conceive." The meaning of this is, that miscarriage or premature labour threatened, for obviously it was recognized that tumultuous movements of the foetus with or without a "big belly" frequently anticipated premature labour or death of the foetus. "And she went to consult the Lord and when her time was come to be delivered, behold twins were in her womb, he that came forth first was red and hairy like a garment and his name was called Esau, and immediately the other coming forth held his brother's foot in his hand and therefore he was called Jacob." One may therefore presume from this that the children were uniovular twins, somewhat premature, and not of great size seeing that Rebecca was a primipara and had been married some time.

I have often wondered if Esau was a freak of atavism, but in the light of modern endocrinology I am inclined to think that here we have the first traditional examples of hyper- and hypo-adrenalism; for we read that "Esau became a mighty hunter and a man of the field," whereas "Jacob was a smooth man and dwelt in tents," what in the East to-day would be called a Babu.

In II Kings, Ch. 19, v. 3, it is obvious that uterine inertia was recognized as of grave omen to the women in labour, for one reads "This day is a day of tribulation and of rebuke, the children are come to the birth and the woman in travail had not strength;"

and again in Jer. Ch. 15, v. 9, "she hath borne seven, is become weak and her soul hath fainted away."

In Gen. Ch. 35, v. 16, we have the tragic account of the death of Rachael. "And Jacob moved on in the springtime, and was still some distance from Ephrath when Rachael felt the pains of childbirth, she had hard labour, but in the midst of her hard labour, the midwife said unto her, 'Fear not, you are going to have another son,' and when her soul was departing for pain, and death was now at hand, she called the name of her son Benoni—the son of my pain." One wonders much what her death was due to, for assuredly it must have been a bitter blow to Jacob after his long wait for Rachael. It is, I think, obvious that the presentation was normal, but the fact that labour came on while they were "on trek," suggests prematurity, for the "chosen people" do not travel during the tenth lunar month. Possibly placenta prævia, morbus cordis, or toxæmia of pregnancy caused the unexpected onset of labour; but if eclamptic convulsions had occurred they would have been mentioned. It is not improbable that a fibroid tumour of the uterus with pregnancy may have been the cause, for in Gen. Ch. 31, v. 35, the text suggests that Rachael suffered from old standing dysmenorrhœa and menorrhagia; for Rachael states "let not my lord be angry with me that I cannot rise up before him, because it has now happened to me according to the custom of women."

In I Samuel, Ch. 4, v. 19, there is a wonderful clinical picture of precipitate labour, associated with cardiac shock and fatal syncope, the result of sudden emptying of a big uterus; "And the wife of Phinehas was big with child, and near her time, and hearing the news that the Ark of God was taken and her father-in-law and her husband were dead, she bowed herself and fell in labour, for her pains came upon her on a sudden, and when she was on the point of death they that stood about her, said to her, 'fear not for thou hast borne a son,' but she answered them not nor gave heed to them." This wonderfully graphic description cannot fail to appeal to any obstetrician who has seen a case of cardiac shock, colossal post-partum hæmorrhage, or acute inversion of the uterus.

There is a curiously sinister and graphic description in Num. Ch. 5, v. 21, which can be interpreted in various ways, but I think the probabilities are in favour of general peritonitis, or acute hydramnios, for it is written, "if thou hast gone aside from thy husband and art defiled, the Lord make thee accursed, and an example for all among His people. May He make thy thigh to rot, and may thy belly swell and burst asunder. Let the cursed waters enter into thy belly, and may thy womb swell."

In Job Ch. 38, v. 8, we find a picturesque description of sudden rupture of the membranes, which will remind many students of their days on the district. The passage runs, "who shut up the sea with doors when it broke forth as issuing out of the womb."

Finally, it is interesting to note that there are no references to the pangs of childbirth being pleasurable, or easy. Among other quotations we have that of Gen. Ch. 3, v. 16, "I will make childbirth a sore pain for you, you shall have pangs in bearing, yet you shall crave to have your husband and he shall master you."

Women of Great Britain have to thank Queen Victoria who was the first to popularize the use of anæsthetics during childbirth and it cannot fail to be a matter of pride that the original chemical discovery of chloroform, (though it was first used by Sir James Simpson) was a member of this learned Society and lived here. I refer, of course, to David Woldie whose honoured bust is in your Hall.

#### PUERPERIUM.

It is curious to note that beyond the immediate death of Rachael, and the wife of Phinehas, and presumably Tamar, there are no references to anything that would indicate puerperal sepsis, although, as I have previously pointed out, the "obstetric hand" of Job, Ch. 26, v. 13, would appear to suggest recognition of operative or manipulative midwifery.

Perhaps it was of such that it is written in Ecclesiasticus "Honour the physician for the need thou hast of him, for the Most High hath created him. The skill of the physician shall lift up his head, and in the sight of great men he shall be praised." It is not impossible, however, that the son of Sirach inferred the meddlesome midwife when he wrote the bathos, "He that sinneth in the sight of his Maker shall fall into the hands of the physician." But all the same, worthy or unworthy, a physician was entitled to his expenses or fees! vide Ex. Ch. 21, v. 19.

In the case of a male birth the puerperium lasted 33 days and coitus was forbidden before that date. In the case of a female child 66 days had to elapse before purification or coitus. No adequate explanation for this differentiation can be put forward.

#### GYNÆCOLOGY.

There are not many references to Gynæcology, though there are very exact rules, regulations, and medico-legal enactments as regards rape, incest, consanguineous marriages and prostitution. One of the earliest and most characteristic stories of rape is in Gen. Ch. 34, with its tragically amusing sequel in verse 25, for



this is the first reference to minor clinical surgery in the Bible; "The men of Shechem had consented to be circumcised in order to legalise the marriage of their chief, to Dinah, whom he greatly loving had ravished": and it is written "The circumcision was done on all the men, and behold the third day when the pain of the wound was greatest, the sons of Jacob entered boldly into the city and slew them."

Apart from the tragic side of the vengeance, this incident is of great gynæcological and sociological importance, for it creates a new point of view as regards women in ancient times. Throughout the world up till then, the neolithic idea of women, as so much property, existed; and compensation for injury to such property was all that was demanded. Here, however, we find that the idea of purity has entered the Hebrew mind, and a law is made imposing the death penalty for infidelity in marriage or for the seduction of an affianced girl. Moreover, the penalty of marriage is created, for a man, seducing an affianced girl, is compelled to pay her price and to take her for wife. From this we must assume that here we see the dawn of emancipation for women, for up till then, they were steeped in an inferiority complex.

In the days of the Patriarchs a woman did not exist until she was married, and even then we have the instance of the wife of Joakim carrying the load of inferiority which was hers as a girl, though she was innocent of the charge of infidelity made against her.

The story of Judith and Holofernes indicates, perhaps, the degree of emancipation reached; and for those who are students of Schopenhauer, Otto Weiniger, or Ludovici, it will not come as a surprise that 2500 years ago there was shown for women a great contempt as well as a great respect. We find Ecclesiasticus urging "man not to be jealous of his wife but to keep his soul from her." "He is to beware of a woman who sings, he is to turn away his eyes from a beautiful woman, because beauty is a snare. He is not to look upon another man's wife. He is to fear wine and woman, for a woman is either a reward or a punishment."

The sin of Onan (Gen. Ch. 38, v. 10,) would appear to foreshadow one of the present modes of birth control, and to indicate "withdrawal." There is nothing in any of the texts to suggest that masturbation is inferred. It is obvious that such a method was considered an abomination, and was looked upon as unhealthy,—as indeed it is for both parties. Moreover, up to the present day this and all such methods are taboo among orthodox Jews, wherefore they multiply.

Lastly, there is the well-known incident in St. Mark Ch. 5, v. 25, which is so invariably quoted by Christian Scientists: "And a

woman who was under an issue of blood 12 years, and had suffered many things from many physicians, and had spent all that she had, and was nothing the better but rather the worse, when she heard of Jesus, came in the crowd behind Him and touched His garment, for she said, if I shall touch but His garment I shall be whole. And forthwith the fountain of her blood was dried up and she felt in her body that she was healed of the evil. And He said to her, ' Daughter, thy faith hath made thee whole, go in peace and be thou whole of thy disease.' "

“Well ordered words are as the honeycomb,  
sweet to the soul, and health to the bones,  
and good instruction shall give grace.”