

BULLETIN

OF THE

UNIVERSITY HOSPITAL

(Affiliated with the University of Georgia School of Medicine)

Vol. 5

Augusta, Ga., June, 1945

No. 9

ANDROGEN THERAPY IN CORONARY DISEASE PRELIMINARY REPORT

Brittingham Clinic

John W. Brittingham, M. D.
Augusta, Ga.

In the year 1938 the writer observed that marked relief from anginal pain was experienced in patients who were receiving injections of testosterone propionate. The injections were made for the treatment of the male climacteric, and the patients themselves volunteered the information that they could perform much more effort without eliciting substernal oppression and pains of more or less severity. In 1939 testosterone was administered to many patients for the sole purpose of aiding them in the management of their coronary status. Definite relief was observed in angina. The attacks occurred much less frequently and were not as severe. The exercise tolerance of the patient was improved very emphatically, and several patients were enabled to return to useful occupations.

Since 1939 many observers have reported gratifying results in the control of angina pectoris from injections of testosterone propionate in oil. The writer reported some of his observations to the Medical Association of Georgia at their annual session in Savannah on April 12, 1944, and in November of that year to the Medical Society of Georgia also in Savannah.

On January 12, 1939 implantation of pellets of testosterone was made to a man 74 years of age. His exercise tolerance was increased in every way. In June 1945 pellets of crystalline testosterone were obtained from Dr. Edward Henderson of the Schering Corporation and implanted to four men with severe angina pectoris. Pronounced relief has been experienced by all of these patients, and has occurred within a week after the operation. Each patient was given 4 pellets of 75mg. each. Correct dosage, and other observations are now

being made in an increasing number of patients, but this preliminary report was deemed advisable since it offers hope and relief to such a serious, painful and prevalent disease syndrome.

1345 Greene Street.

FACE PRESENTATION

Richard Torpin, M. D.
and
F. N. H. Harrison, M. D.



CASE REPORT:

L. M. B., age 33, gravida 7, para 5, one miscarriage at three months; admitted to hospital in hard labor at term.

Examination revealed a well-developed colored female with large scar on the side of her right hip and buttock due to previous burns. Blood and urine — normal. Hemoglobin 13.2 gms. B. P. 145/100.

Total length of labor — ten hours and fifty-five minutes. Second stage one hour. The fetus delivered as a face, mento-anterior. The

patient stated that this was her most difficult labor. Since she was a multipara no x-ray study of her pelvis was made. From the appearance of the fetal head as shown in the drawing this may have started as a brow presentation, changing as labor progressed into a face. In the last 8,000 labors there have been eight to ten face presentations, all of them delivering spontaneously. They rotated so that the chin was underneath the symphysis pubis and were born without a great deal more trouble than if the fetus had been presenting by occiput.

A study of the fetal head shows that it is essentially bullet-shaped, being oval cylindrical, with the occiput at one end and the face at the other end of the cylinder. The neck, acting as a fulcrum is attached to the side of the cylinder somewhat toward the posterior end. This fact forces most heads to present with the posterior portion first, i. e. occiput presentations. Occasionally, however, in about one out of a thousand deliveries, the opposite end of the face enters the pelvic canal first. The mechanism of labor in this case almost insures that the chin rotate anteriorly and delivery is effected about as easily as though the presentation were reversed. The dread with which face is considered by most obstetricians is very likely due to the fact that many of these begin as brow presentations in greater or less degree. In that case, unless it is a very small fetus, delivery is effected spontaneously with the greatest of difficulty. Consequently in most brow presentations the head suddenly changes to a face presentation and is quite readily delivered as a mento-anterior. Some of these fetuses apparently lay in the uterus with the fetal attitude of hyperextension of the head, possibly for weeks before labor, since not a few of them will maintain such an attitude long after birth, as long as ten months in one instance, a fact which greatly disturbed the mother. All have recovered from this tendency without any particular embarrassment.

UNIVERSITY OF GEORGIA SCHOOL OF MEDICINE
PLANS LARGE MEDICAL CENTER

G. Lombard Kelly, M. D. Dean

(reprinted from: The Journal of the Medical Association of Georgia
Vol. 34: 159, August 1945.)

The University of Georgia School of Medicine has made wonderful strides forward since it was placed under control of the Board of Regents of the University System. Full-time clinical departments

in four fields of medicine date back to 1922. In 1937 four additional full-time clinical departments were added, and in 1943 three others. The further addition of about one-half dozen chairs in other specialties will round out a clinical faculty commensurate with a modern medical center.

The pre-clinical departments have long been on an efficient basis and the present personnel of these departments of high quality. Original investigation and research in both the pre-clinical and clinical departments in the past ten years has attracted nation-wide attention. Textbooks published by faculty members during these years have attracted additional attention to the school. Some of these books are Cleckley's "Mask of Sanity.", Mettler's "Textbook of Neuro-Anatomy.", Krafka's "Textbook of Histology" and "Textbook of Embryology.", and Greenblatt's "Office Endocrinology". Research papers too numerous to list here have been published. Research grants have been made by foundations and pharmaceutical firms to aid in the research by members of the school's faculty.

In addition to textbooks and research publications, faculty members have contributed to the armamentarium of the physician in practice and to that of other research laboratories. The department of bacteriology has produced a vaccine for the detection of one of the venereal diseases. This vaccine is now marketed by a well known biological supply firm in the East. The department of obstetrics and gynecology has contributed a pelvimeter for the x-ray measurement of the size of the pelvis of the expectant mother; a device for packing the womb after childbirth in order to prevent hemorrhage; a resuscitating device for infants which has been approved by the Council on Physical Medicine of the American Medical Association as well as other devices for the use of specialists in this field. The department of physiology has invented a device for measuring and recording by photographic means direct blood pressure readings. These latter devices have been manufactured by the mechanic of the department and sold to many of the departments in other medical schools.

Four years ago a 50% increase in the capacity of the school was authorized by the Governor and the Board of Regents. The first year class now accomodates 76 students instead of 48 as was previously the case. The faculty personnel was increased in accordance with regulations of the medical accrediting agencies.

In order to develop an outstanding medical center the school faces some significant needs. First of all there must be an increased

allocation from the Board of Regents for the maintenance of the school. Next additional full-time clinical specialists must be added to complete the faculty which is required for a real medical center. The third need, which is possibly the most urgent of the three, is increasing the indigent and semi-indigent patients for clinical teaching material demanded by the larger third and fourth year classes.

During the 1945 session of the State Legislature an act was passed authorizing the Board of Regents to buy, lease or construct a general state hospital on the medical school campus, and to conduct it for the benefit of the sick poor of the State. While no funds were appropriated for the construction of the hospital, it seems assured that the necessary funds will be provided shortly after the termination of the war. A legislative committee has inspected the medical school and recommended that a receiving hospital for mental patients be placed on the medical school campus. Many patients could be cured and sent home from such a psychiatric institute without the stigma of having been sent to an insane asylum. It has also been stated that the next state tuberculosis hospital will be placed on the medical school campus in cooperation with the full-time clinical departments of tuberculosis and thoracic surgery. The realization of the construction of these three hospitals would more than supply the necessary clinical material for the enlarged third and fourth year medical classes.

Paving the way for the new general state hospital was the appropriation obtained during the past three years for the hospitalization of indigent patients from the rural counties of Georgia. This appropriation, amounting to \$50,000 a year, provides treatment for a comparatively small number of patients, although the great need of treating such patients is so evident throughout the state. The state and county welfare departments are deeply interested in the expansion of the Medical State Aid Program and in its culmination in a general state hospital of 200 to 500 beds.

Following the war there will no doubt be marked increase in improved medical care and in better medical education. This will bring a great demand for a better distribution of medical care so that individuals in outlying communities may receive the attention they need. The University of Georgia School of Medicine is looking ahead to its full cooperation in the plan to provide more, better and properly distributed medical care to the people of our state, and solicits the support of all citizens in the development of an outstanding medical center on its campus. Post-graduate medical training is an important

part of this program. It earnestly requests, therefore, the enthusiastic team-work of all state agencies in bringing about this ideal setup for an efficient health program in our common-wealth.

RUPTURE OF THE UTERUS

Richard Torpin, M. D.
and
W. G. Watson, M. D.



CASE REPORT

Mrs. L. D., age 39, white multipara, para 6, gravida 15, medium constitution type. She was admitted to the hospital at term with transverse presentation of the fetus and membranes ruptured. She gave a history of having five living children, a considerable number of miscarriages and one previous transverse with external version of a dead baby.

x

Her urine was normal. W. B. C. 7,650; R. B. C. 2,600,000. Hemoglobin 9.6. Wassermann—negative. B. P. 194/100. The fetal heart tones on admission were 150. X-ray, A. P. film of the abdomen revealed the fetus lying transversely with the head to the right, the neck to the pelvic inlet and the buttocks and legs to the left. Both arms were high in the uterine cavity.

External version was attempted, but because of absence of fluid in the amniotic sac it was unsuccessful. Labor ensued. After she was in the labor room four hours an arm prolapsed. The patient was taken to the delivery room, her vagina scrubbed, the arm scrubbed and an attempt made to perform internal version, the cervix being nearly fully dilated. After one minute, however, the resident recognized that the uterus had ruptured and the baby escaped from the rent. She immediately went into deep shock with a pulse rate of 160. The fetal heart tones disappeared at once. A laparotomy revealed the uterus ruptured along the whole left lateral area into the left broad ligament and through the left tube. There were approximately 1,000 cc. of blood in the abdominal cavity and a dead fetus outside the uterus free in the cavity. The fetus was removed and the uterus excised by total abdominal hysterectomy. The long irregular rent in the left broad ligament was sutured tight after inserting into the traumatized area 100,000 units of penicillin and 5 grs. of sulfanilamide. The patient was given three pints of blood intravenously. She made an uneventful recovery and went home on the eighth day, her fever rising to 100 degrees but once.

DISCUSSION:

One of the most interesting complications of pregnancy that occurs not infrequently in a large clinic drawing patients from a distance is transverse presentation which may be divided into two types—neglected and non-neglected the former being those without adequate treatment for a period of 24 hours in labor. In these cases, usually, the fetus is dead and the treatment assumes a different aspect than in the non-neglected patients. The one case herein described was a non-neglected case, however the therapy should have been entirely different. Probably it is unwise ever to allow a transverse presentation to proceed into labor. If the membranes have not ruptured an external version is easily done and is quite effective even if a competent attendant must remain by the bedside and hold the head in the inlet long enough for it to become firmly fixed in the pelvic canal. If, however, the membranes have ruptured external version is often not successful as was the case in the patient herein described. The treatment then should not be passive as was instituted here for fear of the very thing that happened: prolapse of the arm (or cord, or both). She should have had the introduction of a large (No. 6) Voorhees bag (which has the diameter of a large fetal head) inserted into the uterine cavity through the cervix and distended fully by mildly antiseptic solution or sterile water. An attendant should watch constantly when

the cervix is fully dilated and the bag comes through. The vagina and perineum should then be scrubbed thoroughly and, under all sterile precautions, an internal version be performed, with the attendant grasping both feet and effecting delivery under deep anesthesia, as in the cases of breech presentation. In the majority of instances this results in no trauma to the mother and a live uninjured fetus. A deep episiotomy is desirable, as in other cases of breech presentation.

Internal podalic version is much simpler if the membranes have not ruptured, and the sooner in labor the bag is inserted the better. This, if the membranes have not ruptured, conserves the amniotic sac and fluid; or if the membranes have ruptured prevents prolapse of an arm or of the cord and insures a fully dilated cervix at the time of operative delivery.

If, in the attempted version, the fetus dies, or if it is already dead, then, the cervix being fully dilated, the safest method for the mother is the amputation of the fetal head by a special method elsewhere described. This can usually be effected without trauma to the mother's pelvic tissues. The fetal body may be extracted by pulling on the arm and then the detached fetal head may be delivered by pulling on the jaw or, if necessary, by craniotomy.

Transverse presentation occurs probably once in 200—300 deliveries — often enough to necessitate examination of the patient by the obstetrician as soon as possible after the onset of labor. It is most likely to occur in older multiparas with a flaccid uterus or in case of hydramnios or excess quantities of amniotic fluid. By the method outlined there should be no maternal mortality and probably not over 33.3% fetal mortality.

BROW PRESENTATION

Case Report

Richard Torpin, M. D., W. G. Watson, M. D.
and T. L. Pritchett, Jr., M. D.

Mrs. H. C. D., age 23, white primipara, medium constitution type; went through pregnancy uneventfully, gaining ten pounds. Her hemoglobin was 12.2 gms., per 100 c. c. of blood, urine normal. Pelvic measurements: A. P. Diameter $11\frac{1}{2}$ cm., transverse $12\frac{3}{4}$ cm. with a

rather narrow mid-pelvis as shown by inward protruding ischial spines in the x-ray film of her inlet. At the time of labor a lateral x-ray film revealed a large fetus presenting by brow left anterior and the placenta attached to the posterior wall of the uterus.

She went into labor and progressed quite normally. Her uterine contractions were 40 seconds in duration every 5-7 minutes. At the end of about fourteen hours the cervix was dilated to seven centimeters. The fetal head engaged. From then on for 57 hours she made very little progress. The uterine contractions still about 5-7 min. apart, lasting about 40 seconds were rather firm. Despite adequate sedation by pentobarbital and hyoscine and 1000 c. c. of 5% dextrose administered intravenously every eight hours or so, little progress was made. During all this time the mother's pulse rate was below 100 and the fetal heart rate around 140, full and regular. It was hoped that the brow would suddenly change to a face presentation with chin anterior and deliver spontaneously. At about 57 hours both mother and fetus showed some apparent signs of exhaustion in spite of fluids and rest. The maternal pulse gradually increased to 100, occasionally a little higher, and the fetal heart then increased to about 160. Progress had been watched by rectal examination; no vaginal examination had been made. The membranes had not ruptured and installations of aqueous solution of methylate intravaginally had been given every four hours.

It was then decided that the cervix was not fully dilated, that the head was still high in mid-pelvis and the safer method of delivery would be by low Cesarean section which was then done. The fetal head, still in brow left anterior presentation was tightly wedged in the pelvic inlet. It was extracted with some difficulty. The amniotic fluid was not meconium stained. The infant, a male weighing 9' 12", breathed spontaneously and gave no trouble thereafter. The incision in the lower uterine segment and cervix was closed by three layers of continuous fine gut sutures. Four grams of sulfanilamide were introduced into the space between the bladder and the lower uterine segment and the bladder flap of the peritoneum was sutured with two layers of fine gut continuous sutures.

During the induction of the anesthesia by cyclopropane, the patient vomited and aspirated a small quantity of stomach content, which was aspirated from her trachea from time to time during the next few hours. Probably due to the sulfanilamide she was rather cyanotic for four or five days. This gradually cleared up and her

convalescence was normal from then on without any evidence of infection.

DISCUSSION:

Among approximately 8,000 supervised labors there have occurred including this one, five known brow presentations.

The first one, a white primipara, occurred about ten years ago and was confirmed by x-ray later in labor. The patient staid in labor about 24 hours without much progress. The fetal heart tones went to 180 and a low cervical section was done. We obtained a live baby without injury and the mother's convalescence was uneventful. This infant disturbed the mother by lying in the crib with the head far back over a period of ten months, indicating a probable tendency of opisthotonos during its last few weeks in the uterus. The child finally overcame the habit and was normal from then on. This tendency has been noted since then in several face presentations.

The second case, A. M., was a medium constitution Negro woman, multipara, in her 7th pregnancy with 6 living children. She entered the hospital, having been in labor three days attended by a mid-wife until a local physician was called who was unable to deliver her and sent her into the hospital with the diagnosis of face presentation. The notes from her record run as follows:

"X-ray shows this to be a brow presentation, a very definite picture. Marked edema to the vulva. Condition of the fetus not very good. F. H. T. 140, but varies with uterine contractions slowing to 70 per minute at times. Maternal pulse is fairly good. Mother not dehydrated. Blood pressure: 150/90. Urine: Alb. 3 plus, no sugar or acetone bodies. X-ray shows inlet: A. P. 11 cm., trans. 12 cm. Wide mid-pelvis. Brow presentation with face to right. Will try to alter presentation under anesthesia. She has had many vaginal examinations by midwives." Operation: Cyclopropane anesthesia. Soap and water scrubbing of perineum and vagina. Cervix found dilated to 6 cm. Infant presenting by brow, eyes to right. Patient put in Trendelenburg position and fetal head then easily pushed out of inlet and rotated to face. Impossible to turn it to a vertex presentation. Chin up to start with. (Possibly a fish-hook on a lead tube could be applied to bone of chin to hold it down until engagement by face was effected.)"

"Five hours later the presentation remained face after turning the head and bringing down the chin. Progress was made and the

cervix became almost fully dilated and presenting part descended $1\frac{1}{2}$ cm. farther. Attempt to apply Kielland forceps failed because the first blade could not be gotten into the exact position desired. Consequently, we thought that version and extraction would be safer. However, this proved to be very difficult as the uterus was firm and rather tight in a long contour. The feet were high and were brought down with difficulty but with not nearly so much as was encountered in turning the fetus afterwards. It took all the strength of the resident (Watson) to accomplish this in spite of deep anesthesia with ether.

During this time no pulsation in the cord was felt. There was difficulty further in bringing down the left arm so that by the time the baby was born it was in deep shock. Heart beating very slowly, about once in ten seconds. Insufflation by controlled air pressure brought the pulse back to normal rate but the child was very cyanotic and attempted two or three inspirations but did not succeed, and died about one hour and fifteen minutes later."

"What should have been done was to wait a few hours more and then apply Kielland forceps and deliver as a face presentation. No doubt both mother and baby could have stood this better than version and extraction. There was marked edema of the vulva and vagina due to toxemia, but the outlet was roomy enough without episiotomy."

The third case—an obese Negro woman, multipara, in labor several days, came in such a condition that Cesarean section was out of the question. She had a very rapid pulse and some fever during labor. When the condition of the mother was rather desperate the brow presentation suddenly changed to a face delivery and she precipitated in bed. The baby cried spontaneously and progressed normally. The convalescence of the mother was normal.

The fourth case: Mrs. O. T. M., was a multipara, aged 23, and of white medium constitution type. The history of pregnancy was normal. Pelvis shown by x-ray had an A. P. diameter of 12 cm., lateral 13 cm. and a narrow mid-pelvis. She had a rapid first stage under caudal infiltration of 1% procaine, 20 c. c. every twenty minutes, a total of 271 c. c. Full dilatation after nine hours of labor. There was slow progress in second stage and meconium appeared. F. H. T. 60-80 per minute at time of uterine contractions. Two hours earlier x-ray film revealed left occiput anterior. After three hours of the second stage distress of the fetus became obvious and Kielland forceps were ap-

plied. A male infant, 7' 8" was delivered occiput posterior with the caput on the right side of the forehead. The head was very round and was definitely in brow presentation at time of delivery, which was effected with two pulls of forty seconds each, two minutes apart, with probably not over sixty pounds traction. No injury to the fetus. Undoubtedly in the four hours between the time of the x-ray and the delivery the head deflexed and the brow presented and rotated anteriorly to brow right anterior. The placenta was on the anterior wall.

Brow presentation is analagous to a fetal bullet trying to go through a rifle sideways, and unless the side of the head in relation to the size and contour of the maternal pelvis canal is extremely favorable it requires considerable force to effect labor — much more than the average uterus can muster. In the diagnosis of these conditions an accurate knowledge of the pelvic inlet showing the degree of width of the mid-pelvis is invaluable. The lateral soft-tissue x-ray film taken during the latter part of labor is indispensable in diagnosis of the degree of extension or flexion of the fetal head. Probably many fetuses delivering by face presentation may originally have been brow presentations. Our experience has been that a face delivery which was originally a face presentation at the onset of labor proceeds about as normally as one presentating by occiput.