FETAL INTRACRANIAL HEMORRHAGE AS A COMPLICATION OF LOW DOSE ASPIRIN : DETECTION AND MANAGEMENT

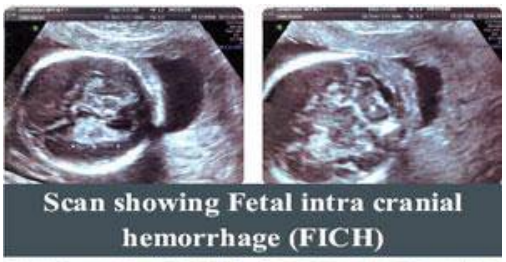
Intracranial hemorrhage (ICH) in the fetus and newborn is a rare phenomenon with intra periventricular hemorrhage (IVH-PVH) being the most common type. The incidence of intracranial hemorrhage is higher in premature infants, occurring in approximately 25 - 45% of less than 32 weeks gestation or with a birth weight of less than 1,500g (Ref: 1, 2). Although the antenatal detection of fetal ICH has become possible in the recent two decades, the actual incidence of an in utero fetal ICH has not been determined. Vergani et al (Ref 3) reported that the incidence of fetal ICH in a referral centre was about 0.9/1,000. We present our experience with one patient in whom fetal ICH was detected prenatally by ultrasonography (USG) and is under stringent followup with us.

CASE HISTORY

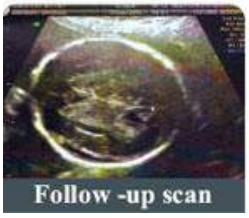
A 43 year old lady came to us in March 2008 with a desire to conceive. She was married for 16 years. It was a non-consanguinous marriage with no significant anomalies noted on family pedigree. She was para 2, live 0 (both children expired in a road traffic accident) with a history of previous two lower segment cesarean sections and bilateral concurrent tubal ligation. She had two laparotomies done ; one for ovarian dermoid leading to right salpingoooopherectomy and the other for myomectomy and tuboplasty. She had five cycles of IVF-ET (in vitro fertilization and embryo transfer) failures with both self and donor oocyte programmes (poor responder) at other centres. Her past medical history was significant for the presence of superficial thrombophlebitis following the use of low dose contraceptive pills in august 2007. After the underlying disorders (antiphospholipid antibody syndrome and coagulation disorders) were ruled out and the condition resolved (limb elevation, analgesicsand antibiotics), she was started on low dose aspirin, once a day.

At our centre, the husband's semen analysis was found to be normal. Other baseline investigations including hormonal profile (serum thyroid and prolactin) did not reveal any significant abnormality. The pelvic scan showed a normal size uterus, left ovary smaller than normal with poor ovarian reserve. The right ovary was absent due to a previous surgery. Since the lady had poor response to ovarian stimulation in previous cycles, low ovarian reserve (High day 2 FSH) and age factor, the couple were counseled for the donor oocyte programme. A hysteroscopy was performed, which showed a normal uterus with visualization of both ostia . The couple conceived in the 2nd cycle of ICSIET (intra cytoplasmic sperm injection and embryo transfer) using donor oocyte and husband's sperms.

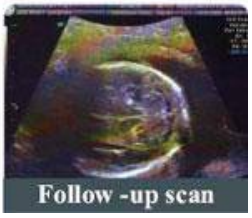
The pregnancy was strictly monitored with a regular antenatal surveillance. The antenatal investigation profile and serum triple test were normal. However, the target imaging fetal anomaly antenatal scan at 22 weeks by an expert sonologist showed features suggestive of intracranial hemorrhage.



Scan showing Fetal intra cranial hemorrhage (FICH)



Follow -up scan



Follow -up scan

The scan features were suggestive of left germinal matrix hemorrhage extending into the ventricle- grade II. The maternal TORCH tests were negative and the complete blood count was also within normal parameters. Low dose aspirin was stopped after a hematology consultation. The couple was extensively counseled and explained the implications of scan findings. After taking an informed consent, fetal blood sampling was performed to rule out fetal thrombocytopenia which was well within normal limits. The patient was subsequently reviewed with fortnightly scans which showed no fresh bleeds and gradual resolution of the existing periventricular hemorrhage. The patient is now at 27-28 weeks of gestation and the pregnancy is progressing uneventfully.

DISCUSSION

Intraventricular hemorrhage is classified in neonates as follows:

Grade I
Limited to subependymal matrix;
Grade II
Clear spill-over to ventricles, but filling less than 50% of the lateral ventricle and without ventriculomegaly;
Grade III
Spill-over to the ventricle, with flooding of 50% or more of one or both lateral ventricles and ventriculomegaly; and ***Grade IV***
Grades I, II or III *with hemorrhage in a large part of the periventricular parenchyma.*
The USG findings of ICH are quite subtle and difficult to differentiate from other intracranial lesions. However, the advent of new techniques in the field of USG allow an accurate diagnosis and satisfactory follow-up of fetal ICH (Ref 4).

Antenatal fetal ICH may occur spontaneously, or in association with various maternal or fetal conditions. Ghi et al reported the predisposing factors can be identified in as many as 44% of cases (Ref 4). These risk factors include preeclampsia, abruptio placentae, twin-to-twin transfusion syndrome (TTTS), demise of a co-twin, severe fetal growth restriction, alloimmune thrombocytopenia, fetomaternal hemorrhage, severe abdominal trauma, coagulation disorders, congenital infections,and maternal intake of drugs such as warfarin and lodospirin.Aspirin irreversibly acetylates platelet cyclo-oxygenase and the action lasts for the life span of the platelet affected.

The rationale for low dose aspirin is that cyclooxygenase is fully acetylated in the platelets of presystemic (prehepatic) circulation, but insufficient aspirin is present in systemic circulation to inhibit arachidonic acid metabolism in other tissues, in particular the systemic vascular endothelium, placental vasculature and the fetus (Ref 5). However, there have been reports that even this low dose in a few patients can enter systemic circulation which can readily cross the placental barrier and lead to fetal complications as has happened in this case.

A close fetal surveillance by serial USG is essential in aspirin treated patients in antenatal period for early detection of the condition. The literature review shows that the outcome of antenatally diagnosed fetal ICH is poor. Almost 40% of the fetuses die in utero or within one month of birth. Amongst those who survive, only 50% have normal neurologic development at a short term follow up. The prognosis of fetal ICH depends largely on the grade and its progression during subsequent follow up. Perinatal mortality may range from 7.1% (grade I-II) to 44% (grade III-IV) (Ref 4). Due to the significant associated fetal and neonatal outcome with fetal intracranial hemorrhage, we strongly suggest that obstetricians and sonologists should be familiar with predisposing factors and typical diagnostic imaging findings of these events.

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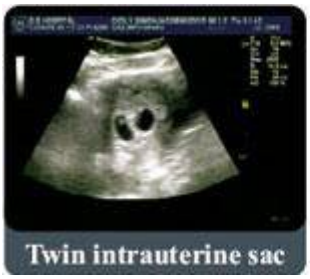
MANAGEMENT OF HETEROTROPIC PREGNANCY (CERVICAL ECTOPIC AND TWIN INTRA UTERINE PREGNANCY) WITH RED DEGENERATION OF FIBROID

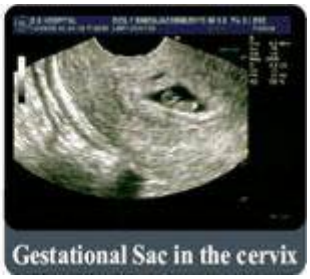
Mrs CT, a 43 years old lady married for 17 years came to us with secondary infertility. She had previously given birth to two children (both natural conception, 12 years old boy and 10 years old girl) by LSCS both of whom tragically lost their lives in an accident in USA. Her previous surgical history included a Caesarean section, ligation of long saphenous vein of left leg for varicosities, excision of a breast nodule for fibrocystic disease of breast and a hysteroscopic polypectomy done over the past years. She had a history of deep vein thrombosis (DVT) during her second pregnancy treated conservatively.

Her transvaginal scan at our centre showed a uterus of size 7.8 x 4.9 cms with a small left lateral intra mural fibroid which did not warrant removal. Right ovarian size was 2.4 x 1.59 cms and left ovary appeared (poor reserve) solid. Her husband's semen analysis revealed asthenospermia. Based on her age and previous history of poor response at another centre and her current hormone analysis(FSH 10.8mIU/ml, LH -9.8mIU/ml, normal prolactin and thyroid levels), she was advised donor oocyte programme with her husband sperms for which the couple readily agreed.

As a prerequisite for the ART programme, hysteroscopy with endometrial biopsy was performed which revealed normal uterine cavity, tubal ostia and the endometrium in the mid secretory phase. First cycle with two (4 cells, grade I-II) embryos did not result in a positive outcome. She conceived in her second cycle of ET in which a sequential transfer was performed with two 4 cells grade III embryos transferred on day 2 and one blastocyst (grade I-II) on day 5. Her first beta HCG was 528 mIU/ml and after 48 hours 1633 mIU/ml. Her 38th day scan showed only a twin intrauterine gestational sac.

At 42 days of amenorrhoea, patient suddenly had a bout of bleeding per vaginum. Scan was done and it showed a twin intrauterine pregnancy but along with one cervical ectopic sac. An expert sonologist opinion was taken (Mediscan Systems) which confirmed our diagnosis. Decision was taken for reduction of the cervical pregnancy with intrasac KCL injection transvaginally.


Twin intrauterine sac


Gestational Sac in the cervix

Under GA and USG guidance with sonologist assistance, intra sac KCL (0.3ml) was injected through a 16G needle into the cervical ectopic sac and cessation of fetal heart beat was observed. Viability of the twin intra uterine pregnancy as confirmed and patient was kept under observation. Patient again had an episode of bleeding 15 days later. On examination, cervical pregnancy was seen protruding through the OS. Under GA, products of cervical conception were evacuated, and the cervical bleeding was controlled by application of cervical cerclage sutures (1-0 Mersilk).

She continued uneventfully until after 1 month when she suddenly presented with an acute pain in the left lower abdomen accompanied by bilious vomitting. USG showed normal intrauterine pregnancy with the intramural fibroid - now slightly larger than before and hence a diagnosis of red degeneration was made. She was treated conservatively with I.V antibiotics, fluids and analgesics. After 5 days of treatment she was discharged in a stable condition.

Latest level II antenatal scan shows a viable dichorionic diamniotic intra uterine twin pregnancy of 20 weeks maturity with no detectable anomalies, normal placenta and liquor.

Techniques of embryo and gamete transfer, number and quality of embryos and gametes replaced, pelvic and tubal condition, and hormonal milieu are well known risk factors for heterotropic pregnancy. Cervical pregnancy refers to an uncommon form of ectopic pregnancy implanted within the cervical mucosa. It is estimated that 0.15 % of all ectopic pregnancies are cervical pregnancies. Manipulations of the cervical canal at the time of embryo transfers in Artificial reproductive techniques (ART) has been cited, however, this is not generally accepted, as cervical pregnancies have been diagnosed even after gamete intrafallopian transfer (GIFT) techniques.

The widespread use of transvaginal sonograghy by experienced sonologist in last decade has facilitated the early detection of cervical pregnancy. Sonographically guided treatments generally involve intra-amniotic or intrafetal injection of KCl or methotrexate into the gestational sac of a cervical, cornual, or cesarean scar pregnancy. USG guided local intrasac injection of potassium chloride (KCl) in combinations or as primary treatment has been described with success rates reaching 90%. Our findings also support the use of intrasac KCl in patients with concomitant ectopic and intrauterine pregnancies, because these procedures allow the intrauterine gestation to progress normally. In these cases with concomitant ectopic and intrauterine pregnancies, the patients should be followed closely for the remainder of pregnancies, in view of the risk that the ectopic gestational sac will continue to grow.

This case was presented to highlight the successful management of a multiple pregnancy with concurrent cervical ectopic and the benefits of cervical cerclage sutures as opposed to descending cervical artery ligation. It is interesting that the pregnancy has continued well despite unusual rare complications arising such as cervical ectopic and red degeneration of fibroid.

LESSONS LEARNED

We should keep in mind the possibility of cervical ectopic in IVF pregnancies. As a routine, we have adopted imaging of the cervix as a part of early pregnancy serial scans. Of course, certainly the transfer of less embryos will definitely reduce incidence, but in this case owing to the previous failures and current grade of blastocyst, all 3 embryos were transferred in an attempt to achieve a good chance for pregnancy.

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HERETEROTROPIC PREGNANCY-RARE OCCURRENCE OF A 12 WEEK RUPTURED RIGHT ISTHMO CORNUAL ECTOPIC ALONG WITH A VIABLE INTRAUTERINE PREGNANCY

Mrs MG, a 25 year old lady came to us with primary infertility. She was married for the past 6 years. Her periods were regular. She had complaints of congestive dysmenorrhoea. She was a known case of severe endometriosis with history of endoscopic surgery done twice for the same (right ovarian chocolate cystectomy with adhesiolysis). She was also given a course of danazol for 4 months following surgery.

She was evaluated at our centre on 09/01/2006. Her pelvic ultrasound showed an uterus of size 5.7 x 2.8 cms, right ovary 2.8 x 2.3 cms and left ovary 3.5 x 2.5 cms. Hormonal analysis showed FSH-10.91 mIU/ml and LH-8.81mIU/ml with a normal thyroid profile and prolactin level.

Husband's semen analysis showed oligoasthenozoospermia. She was advised a combination therapy with injectable estrogen and progesterone to improve the uterine size to normal (6.0x3.0 cms) prior to the ART programme.

The couple was counselled about the IVF treatment cycles and also told about the possibility of donor oocyte programme. But the couple were not ready for treatment and were lost to follow up. The couple came back to us for treatment after one and a half years with recurrence of left sided endometrial cyst of 5.0x5.0 cms. Injection Lucrin depot 3.75 mIU was given to her and transvaginal aspiration of endometriotic cyst was done..

Her FSH continued to remain high. Owing to recurrence of endometriosis, previous poor response to treatment outside and high hormonal levels, the couple was advised donor oocyte programme but they were not willing and instead wanted to attempt one cycle with their own gametes. Long protocol with GnRh analogue and ovarian hyperstimulation with gonadotropins was used following which only 2 dominant follicles were found. On aspiration only one oocyte could be retrieved.

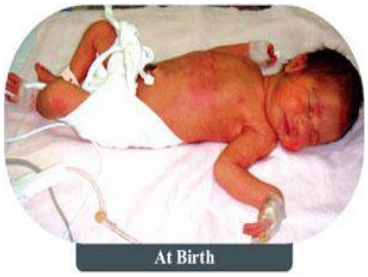
The couple then gave consent for donor oocyte programme. ICSI was done and 4 embryos were transferred. One of own (3 cells grade I-II, day 2) and three with donor (compacting day 4 embryos) were transferred. Her first beta HCG was 163.3 mIU/ml and second beta HCG was 437.1mIU/ml after 48 hours.

Her antenatal scan at 38 days showed a single intrauterine gestational sac with both adnexa normal. Patient was followed up with weekly antenatal scan. In the initial two to three scans, adnexa were also scanned owing to our previous experience with both concurrent cervical and tubal pregnancies. At 12 weeks of pregnancy the patient came to us with acute lower abdomen pain.

A repeat scan of the adnexa, revealed an organised sac with a fetus corresponding to 11-12 weeks, general conditions & vitals were stable. A decision was made for laparotomy and to our disbelief, it was a ruptured isthmo cornual ectopic with the fetus floating freely in the peritoneal cavity. Right salpingectomy was proceeded and hemostasis was secured. Post operative evaluation revealed a viable intrauterine pregnancy and no compromise to existing condition.


Fetus with few clots floating in the peritoneal cavity


Aborted Fetus


At Birth

Patient progressed uneventfully until 10/2/2009. When she came to us with preterm labour on 13/2/2009 and was immediately taken up for LSCS. Patient delivered a healthy female child weighing 1.96 Kgs at her 33 weeks.

LESSONS LEARNED

No single risk factor, laboratory test or combination of these is sensitive or specific enough to predict the occurrence of heterotopic pregnancy.

Since the diagnosis of heterotropic pregnancy in the present case was made late at 12 weeks, it ended up in an emergency laparotomy Such a catastrophe can be prevented by early diagnosis through extensive adnexal scanning during initial antenatal visits and its management by endoscopic surgery.

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DO'S AND DONT'S IN INFERTILITY -RAMBLINGS

Welcome to the year's first newsletter and this time we will be dealing with issues that we have been burning to share with colleagues, non medical friends and other special people. There are certain reasons why some of us have shifted base from practicing general obstetrics and gynecology to purely treating sub fertile couples. Ever wondered what makes us different? The answer is probably our thought process in dealing with these special cases.

We are expected to pay careful attention to their ordeal thus far, pick relevant details from their history that will guide us to plan our treatment, categorize the kind of sub fertility they belong to and then counsel regarding the remaining treatment options with them. We are also well aware that each and every case is different and treatment is always individualized except for certain general investigations and procedures. Yet there are certain “Do's and Dont's” in this special field which remains out of reach for others whose practice has now extended to treat these couples as well. This has now made us even more privileged as we get to deal with more and more challenging cases in practice, thanks to these couples having expended time, energy and finances outside of the sphere.

The purpose of this article is to highlight how despite increasing awareness about causes of sub-fertility, some of us fail to identify problems and in fact complicate them further. We have quoted and discussed some common areas in identifying basis of the problem and the rationale behind therapy. The easiest step in any case is to first try and rule out the male factor (currently 40% incidence).A simple semen analysis can rule out 'half' the problem or probably give you an insight into the problem itself like 'severe oligoasthenozoospermia or Azoospermia'. In addition to accurate assessment of semen analysis, correct interpretation of fluctuating counts and motility is of prime importance.

Even recently, a couple who approached us had therapeutic donor insemination (TDI) at another hospital, since the specialist had found that a count of 10 millions and 20-% moderate progressive motility was a sign of a poor sample.

The couple had been subjected to IUI cycles with donor semen. Ideally when they are faced with a very relevant male factor these couples should have been referred to a centre that would actually help with ART programmes. At our hospital, the semen analysis was found to be normal. We all try to aim at providing any couple with their biological child as far as possible, and that’s how we should think. Under what scrutiny do they come? Hence the need to share these thoughts.

Let us assume that all basic parameters seen are apparently normal in the couple (Semen analysis, D2/3 antral follicle count & hormone analysis and uterine size, regular menstrual cycles), the next step is to rule out tubal factor. Two standard methods of testing exist namely- diagnostic hysterolaparoscopy and hysterosalpingogram. The former is termed the gold standard as this is a one step procedure in ruling out all common pathology, pelvic infection, endometriosis, ovarian pathology, fibroids, uterine anomalies and tubal patency. HSG, though not an ideal first line therapy, is more convenient to be used as a follow up for tubal patency.

The ideal way to confirm an early pregnancy in a secondary / tertiary care set up would be, use of two important tools of investigation namely, the serum beta hCG and/or ultrasound, rather than an UPT (urinary pregnancy test) which can be restricted for use as Home pregnancy testing. Both complement each other and can be used for serial monitoring in ruling out or confirming an ectopic and for assessing the growth pattern in a normal intrauterine pregnancy. Still pregnancy is never ruled out in women who have delayed dates and approach doctors for other medical illnesses. Hence a good number of contraindicated medications are administered and a concern regarding integrity of fetus, post exposure, causes mental and emotional trauma.

It is still a regular feature in our clients- Lady with regular menstrual cycles and normal hormonal profile having been detected with “Polycystic appearance of ovaries” on ultrasound, gets posted for diagnostic hysterolaparoscopy and ovarian drilling.

It really negates our intellect when such a procedure is performed on unwarranted cases further compromising on a good ovarian reserve.

The value of these procedures are best, when utilized within the first year of performance, and these couples are never followed up or given adequate advice. They are left to conceive naturally which has been the “actual” problem until now. When it is time to get invasive it sure is, the time to get invasive, IUI compounds at least 50% of the problem by impeding local and cervical factors. Then again, talking “statistics” to couples really helps, especially personal experience of the doctor concerned and of the institution itself. IUI does yield a lower pregnancy rate in couples with idiopathic infertility in comparison to full fledged IVF. While conception rates don't cross beyond 15 to 20% in IUI, it is still the best and least invasive approach to these couples and often gives us an idea of the woman's response to ovulation induction, fluctuations in semen counts, endometrial response and last but not the least detects cases of recurrent cyclical cysts and unruptured follicle syndrome.

That brings me back to saying that even in cases of PCOS not all of them require ovarian drilling. Certain important criteria like menstrual history, appearance and measurements of the ovaries on ultrasound and previous performances in fertility treatments determine which of these actually need the drilling rather than choosing obesity or Hirsutism as primary criteria. Believe me when we say “once drilled these ovaries should never be touched again”. We have seen cases of encore which may lead to these women performing poorly in ART! Next area is one of bad obstetric history, where these women fail to understand that they need evaluation and counseling about what were the things that went wrong and what steps need to be taken for prevention before they can even attempt conception.

Unfortunately they still come pregnant without the proper evaluation or advice. It is just not enough advising them folic acid, when other important causes involving genetics could be playing an important role in the repeated mishaps. Karyotyping of the chorionic villus is also essential if its recovery during D&C is intact as valuable information on genetic integrity may be lost. It definitely completes your evaluation.

We must also understand that any form of ovulation induction is for a special reason. It is a well known fact that women, when prescribed these medications to regularize cycles rather then for its actual purpose, can develop resistance to the drugs. Yes, conceptions have occurred using the conventional clomiphene and letrozole in unmonitored cycles with just advice in intercourse, but that, we reserve for those special circumstances where a direct control over the cycle cannot be done, owing to the couple moving to another state or country after initial evaluation.

Since there is a small risk of OHSS when they go unmonitored, especially in cases of PCOS, it is always better to use them in a controlled cycle with follicular study and IUI.

We do not go ahead with the treatment cycle if Day 2 LH is high (6.5 or > 7) and firmly believe that as far as possible, ovulation induction be combined with an IUI to give the best possible chances of pregnancy.

Another area of prime importance is ofcourse “Endometriosis” which will cease to exist only when the reproductive organs do ! As long as we have them in situ, there are only periods of remissions and exacerbations, during which we treat or initiate treatment cycles. There is no “single” therapy involved in moderate to severe or severe endometriosis; it is always “combined”. It goes either medical surgical medical or surgical medical surgical. An adequate clearance with “cystectomy” of all endometriomas 4cm or greater is mandatory. GnRh analogues are the main stay where medical therapy is concerned. We often find that women with the moderate to severe grade are left with just a surgical clearance and no other treatment protocols or advice on conception. These women then progress and develop endometriomas that replaces the entire ovary necessitating removal and thereby compromising their ability to have a biological child. So whenever a treatment is initiated, it remains an active and continuous process till a conception is earnestly achieved.

These ramblings stem from personal experiences at our institution and are written to evoke any response positive or negative so that we may all share our experiences and possibly improve our strategies to make motherhood a safe reality.

-Dr. Priya Selvaraj MD MNAMS MCE

NEONATAL UPDATE

B/O of R was delivered by LSCS at 35 weeks gestation following severe oligohydraminos. Antenatal anomaly scan was normal. The male baby weighed 2.6 kg at birth. Apgars were 91 & 9 5. The baby had a normal physical examination, no murmur or dysmorphism,. Baby was feeding well, comfortable, active and had good urine output. Extremities were slightly dusky. SpO2 was 80% in room air and 85-90% on 100% oxygen. Sepsis screen was negative and chest x-ray showed no cardiomegaly. Haemoglobin was 16 g %. There was no metabolic acidosis.

Although the infant was otherwise well, ECHO was done in view of SpO2 not reaching 100% with oxygen. ECHO showed total anomalous pulmonary venous drainage to the coronary sinus, with mixed return via left ventricle vein to innominate vein, unobstructed return and unrestrictive large ASD / PFO. The infant was operated at 2 months of age at frontier lifeline. Repair of TAPVC (unroofing of coronary sinus) plus autologous pericardial patch closure of atrial septal defect and ligation of PDA were done. Baby is well on follow-up at 4 months of age.

This case illustrates several important facts about presentation of cyanotic congenital heart disease in neonates:

A detailed fetal anomaly scan / fetal echo can detect many structural heart defects. However, some conditions such as total anomalies pulmonary venous return (TAPVR). Anomalous origin of left coronary artery from pulmonary artery (ALCAPA), coarctation of aorta etc are difficult to detect antenatally. The diagnosis of TAPVR depends on observing flow in pulmonary veins, which is negligible in fetal life, as the placenta is the fetal lung. Similarly, preductal coarct is missed, as the patent ductus arteriosus in fetal life maintains blood flow in the aorta. Coronary arteries are difficult to visualize in antenatal scans. Hence, a normal fetal ECHO does not rule out major congenital heart disease in the newborn.

This infant had no murmur or cardiomegaly or respiratory distress. The most common cyanotic heart diseases of the newborn period, namely d-transposition of the great arteries (dTGA), TAPVR and Tetrology of Fallot present in this manner. Cyanosis may be the only presenting feature. Blood gas showed profound hypoxia without hypercapnia. Hence, a high index of suspicion is needed to diagnose cyanotic congenital heart disease in the newborn. Absence of murmur or cardiomegaly does not rule out heart disease.

Although the infant had TAPVR, a condition associated with life threatening cyanosis, this infant was operated only 2 months of age. This is because the TAPVR was of the unobstructed type, and a large mixing lesion (PFO/ASD) was present. Prostaglandin was also not given for this reason.

Hence, the decision to start prostaglandin and the timing of the surgery depends on the haemodynamics which varies from patient to patient, for the same lesion. Presence of metabolic acidosis rather than low PO2/SpO2 warrants earlier intervention.

The patient was evaluated for other anomalies and other organs were found to be normal. Major cyanotic heart diseases presenting in the newborn period are seldom associated with other anomalies or IUGR.

The family was counseled about surgery and the operation was successfully performed. The outcome for certain types of congenital heart disease is excellent with modern intensive surgical care. Eg. dTGA, TAPVR. It is important for pediatricians to be aware of this to counsel parents appropriately.

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NEONATOLOGISTS GG HOSPITAL

A DREAM COME TRUE...

Man's Life...

God created the donkey
And said to him.

"You will be a donkey.

You will work un-tiringly from sunrise to sunset carrying

burdens on your back.

You will eat grass,

you will have no intelligence and you will live 50 years."

The donkey answered:

"I will be a donkey, but to live 50years is much. Give me

only 20years" God granted his wish.

God created the dog
and said to him:

"You will guard the house of man.

You will be his best Friend.

You will eat the scraps that he gives you andyou will live

30years.

You will be a dog. "

The dog answered:

"Sir, to live 30years is too much, give me only15 years. " God granted his wish.

God created the monkey
and said to him:

"You will be a monkey.

You will swing from branch to branch doing tricks. You

will be amusing and

you will live 20 years. "

The monkey answered:

"To live 20years is too much, give me only 10years." God granted his wish.

Finally God created man...and said to him:
“ You will be man, the only rational creature on the

face of the earth.

You will use your intelligence to become master over all

the animals.

You will dominate the world and you will live

20years."

Man responded:

"Sir, I will be a man but to live only

20 years is very little,

give me the 30years that the donkey refused,

the 15years that the dog did not want and

the 10years the monkey refused. " God granted man's wish

And since then, man lives

20 years as a man , marries and spends 30 years

like a donkey,

working and carrying all the burdens on his back.

Then when his children are grown, he lives 15

years like a dog taking care of the house

and eating whatever is given to him,

So that when he is old,

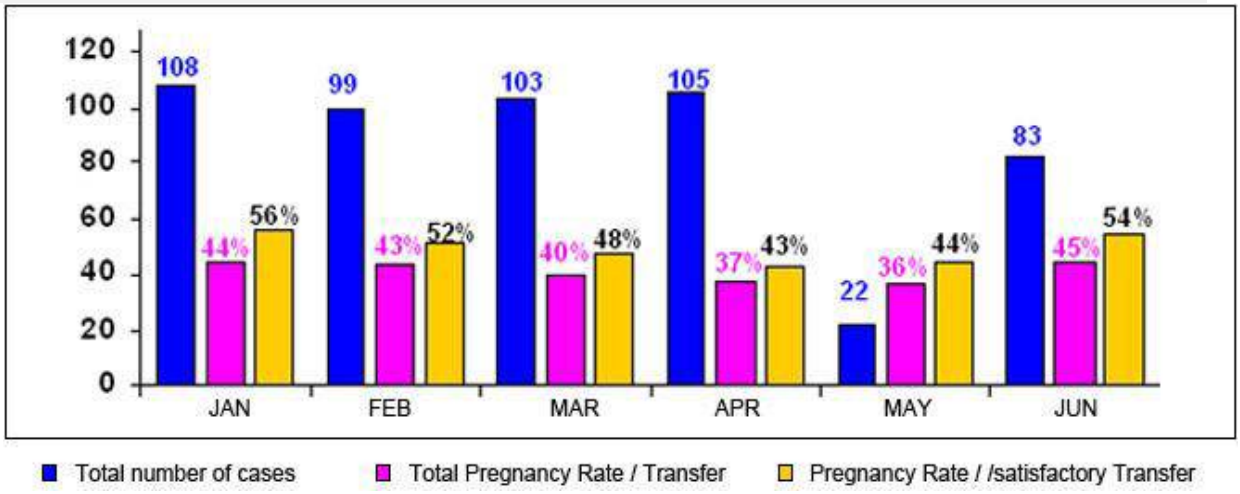
he can retire and live 10 years like a monkey,

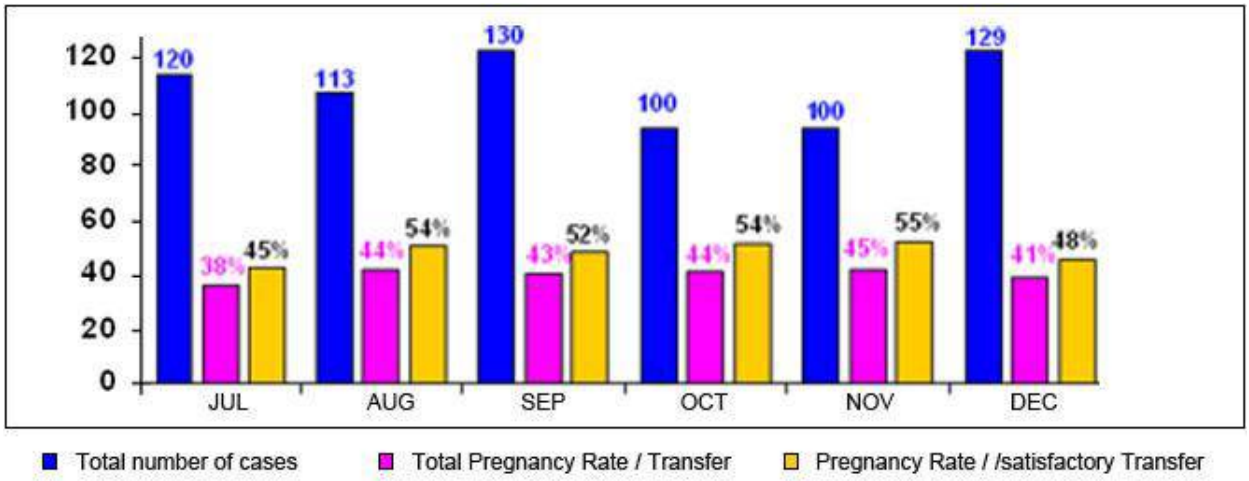
going from house to house and from one son or

daughter to another doing tricks to amuse his grandchildren.

THAT'S LIFE !!!

MONTHLY VARIATIONS OF ART PROCEDURES 2008





Pregnancy rates were calculated for smooth transfer of Grade I-II embryos with a good endometrium

MONTHLY PREGNANCY RATES JAN – DEC 2008)

MONTHS	ART	IUI	NATURAL	TOTAL
January	48	8	17	73
February	43	14	24	81
March	41	23	16	80
April	39	17	15	71
May	8	5	13	26
June	37	10	19	66
July	46	16	14	76
August	50	19	22	91
September	56	13	19	88
October	44	9	14	67
November	45	13	18	76
December	53	23	24	100
TOTAL	510	170	215	895

STATISTICS

ART STATISTICS (JAN 2008 - DEC 2008)

PROCEDURES	NO OF CASES	PREGNANCIES	PREG.RATE (%)
IUI (OWN / DONAR)	2018	170	8.42
GENERAL			
IVF ET	25	12	48.00
ICSI ET	411	149	36.25
IVF & ICSI	30	11	36.66
RI ICSI	2	1	50.00
BT	18	8	44.44
DUAL			
GIFT + ET	14	8	57.14
GIFT + ICSI	54	23	42.59
FROZEN EMBRYOS			
FROZEN ET	8	6	75.00
FROZEN ICSI	89	23	25.84
FROZEN (DET)	55	26	47.27
SEQUENTIAL TRANSFER (OWN /	184	113	61.41

DONOR) DAY 2 AND DAY 5 TRANSFER			
DONOR OOCYTE PROGRAMME (DOP) IVF ET ICSI ET IVF & ICSI ET FROZEN ET OOCYTE THAWING – ICSI ET ICSI BT	25 160 2 9 2 5	4 40 0 2 1 1	50.00 45.45 00.00 22.22 50.00 20.00
DUAL GIFT / SOFT + ET GIFT / SOFT + ICSI	9 17	3 7	33.33 41.17
DONOR EMBRYO PROGRAMME IVT ET ICSI ET BT RI IGSI ET	41 4 13 1 1	25 0 7 1 0	60.97 00.00 53.84 100.00 00.00

OOCYTE THAWING ICSI ET			
DUAL GIFT + ET GIFT+ BT	8 3	2 1	25.00 33.33
OWN + DOP ICSI + ET GIFT / PROST & ET (DUAL)	14 2	8 2	57.14 100.00
OWN + DET	6	3	50.00

Total Number of pregnancies achieved : 3039

Total Number of patients delivered by ART : 1533

Total Number of babies delivered by ART : 1967

Total Number of ongoing pregnancies : 275

Total Number of Fetal wastages : 1221

Lost in follow up : 10