



SAHAYATA
TRUST



INDO-US

DIABETES RESEARCH CENTER & MULTI SPECIALTY HOSPITAL

INDO-US HOSPITAL

MALAKPET, HYDERABAD

Case Study

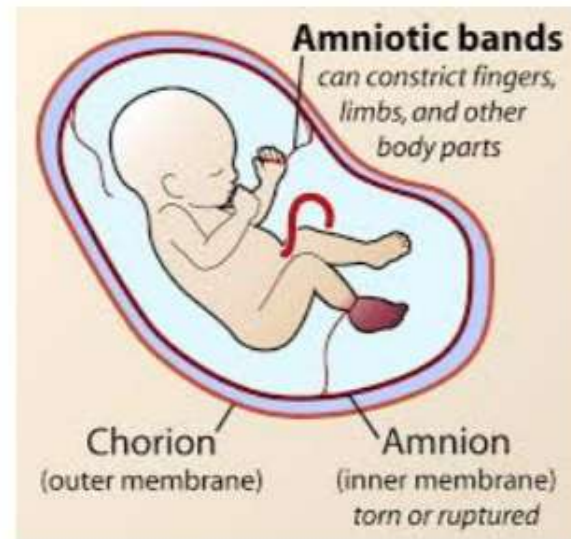


Timely Surgery for 4-month-old

Surgery performed on four-Month-old baby with Amniotic Band Syndrome

What is Amniotic Band Syndrome ?

Amniotic band syndrome is a rare condition, where in the strands of the amniotic sac get separated and entangle with digit, limbs or other parts of the fetus.



How Does it Affect the Baby ?

Thin strands of tissues (amniotic groups) form inside the amnion. These fiber-like groups tangle around the developing fetus, limiting blood stream, and influencing the development of certain body parts. This can cause congenital deformities of limbs.



Healthy Baby



Baby with ABS

What is the Treatment for it ?

After birth, the baby may need reconstructive surgery that can range from minor to complicated, Depending on the extent of the deformities the treatment options could be

NON-OPERATIVE

Type-1: Simple constriction ring

OPERATIVE

- **Excision or release of constriction band:** Type -1 with compromise of digital circulation
- **Circumferential Z plasties:** Type-2 with distal deformities
- **Surgical release of syndactyly:** Type-3 with distal fusions
- **Reconstruction of involved digits or limb:** Type-4 to improve function

- Fetal surgery may be offered if the band is wrapped around a limb, causing swelling and obstructed blood flow.
- It is done to release an amniotic band on a patient's limb and to avoid an in-utero amputation of the limb.

CLINICAL HISTORY OF PATIENT

- 4-month-old-infant presented after normal delivery with right and left lower limb deformity.
- The mother had regular antenatal checkups.
- No maternal H/O trauma, no H/O drug intake except for iron and folic acid tablets in the antenatal period.
- Ultrasonography of the fetus done in antenatal period did not show any congenital malformation.

CLINICAL EXAMINATION OF PATIENT

- Left lower limb has club foot deformity (CTEV)
- Two constricting bands, occurring over ankle parallel to each other of left lower limb.
- Brachydactylic digits and syndactyly of the digits were also observed.
- Spine and other extremities were normal.



- No formed limb distal to constriction band in right lower limb.
- No bony structure formed distally.
- Infected ulcer and swollen limb remnant in right leg.



INVESTIGATIONS

X ray:

Right leg:

- Tibia and fibula end at middle third leg.
- Tapering ends of bone.

Other findings:

- Hips contained.
- Left tibia bowed.



FINAL DIAGNOSIS

Bilateral lower limb Streeter's (ABS) syndrome, Patterson type II - left side and type IV - right side, with right side club foot.

WHAT SHOULD BE DONE IN THIS CASE ?

- Right side ---- Amputation
- Left side ---- CTEV correction, Constriction band release.

CHALLENGES

ANESTHESIA RISK and MANAGEMENT

- Infant
- Low weight
- Anesthesia expertise
- Post-op analgesia

SURGERY

- Minimize blood loss
- Meticulous reconstruction
- Rehabilitation

TREATMENT DONE

Under general anesthesia

First surgery (Performed on 18/7/2020 at 4 month's age):

At 4 months age.

- Amputation below knee on the right side
- Left side release of constriction band and Z plasty done over 180 degree circumference.

Second surgery (Planned after 2 months):

- Release of remaining half (180 degree) of constriction band.
- Serial POP cast application for CTEV correction.

INTRA OP PHOTOS

RIGHT SIDE



LEFT SIDE



CONCLUSION

- ACB represents a rare congenital abnormality with varied clinical presentations that are unique to each patient.
- Surgeons should be aware of the range of clinical presentations that are possible for ACB and should consider this entity in the differential diagnoses for complex and asymmetrical malformations of the extremities, face, limbs, or body wall.
- Patients need tailored-stage wise interventions. With the unpredictable nature of outcomes, the parents must be made aware of all the possibilities to avoid undue complications.