



**ORIGINAL RESEARCH PAPER**

**Medical Science**

**A CLINICAL STUDY OF 25 CASES OF CONGENITAL LIMB DEFICIENCIES**

**KEY WORDS:** Ectromelia, Hemimelia, Dysmelia, Axial, Intercalary

**Dr Abhiman Singh**

M.B.B.S., D.N.B (PMR), M.N.A.M.S Medical officer, D.P.M.R., K.G Medical University Lucknow (UP)

**ABSTRACT**

An Investigation of 25 patients from congenital limb deficient patients who went to D. P. M. R. , K.G Medical University Lucknow starting with 2010 with 2017. This study represents the congenital limb deficient insufficient number of the India. Commonest deficiencies were Adactylia Also mid Ectromelia (below knee/ below elbow deficiency).Below knee might have been basic in male same time The following elbow for female Youngsters. No conclusive reason for the deformity might be isolated, however, A large number guardians accepted that possible exposure to the eclipse throughout pregnancy might have been those reason for those deficiency.

**INTRODUCTION**

D. P. M. R., K.G Medical University Lucknow (UP) may be a greatest Also its identity or sort of Rehabilitation Centre in India. Thusly the limb deficient children attending this department can easily be accepted as a representative sample of the total congenital limb deficiency population in the India.

**MATERIAL AND METHODS**

This study incorporates 25 patients congenital limb deficiency for lack who originated for medicine at D. P. M. R., K.G Medical University Lucknow, starting with 2010 with 2017.

Each patient might have been examined to point of interest and recorded. Exceptional forethought might have been made on inspire history from claiming maternal illness, utilization of drugs, purposes of presentation on radiations and also hyperemesis, foetal trauma, vaccination, smoking auto What's more alcoholic habit throughout pregnancy. Other variables such as socio-economical status of the parents, family history, position for youngster in the family tree and history of any other sibling or closer relative similarly affected ,Thus influenced , which Might potentially through light on the cause for the limb deficiency were also examined .The state of Rehabilitation might have been evaluated Similarly as excellent, useful , satisfactory, or. Poor, based upon those the functional achievement with the help of prosthesis. The gathering for patients which didn't any medication surgical alternately or prosthetic might have been additionally distinguished.

**OBSERVATIONS**

**Occurrence** - 25 congenital limb deficient patients who visited this Department were out of the total number of 2439 amputees.

**Sex Occurrence** – There was 16(64%) male and 9(36%) female patients (ratio16:9), while comparative sex incidence in various other studies show this ratio as 13:12.

**Birth serial of the patient** – The position of the child in the family lineage was found out. It was seen that 11 patients were eldest in the family.

**Aetiological factors** – An attempt was made to find out the exact cause which might have resulted the disability. In 25 patients some sort of history which could probably be correlated with the limb was noticed as shown in table no-1

**Table – 01 CAUSATIVE FACTORS**

Causative Factors (probable)	No. of patients
Drugs	5
Previous abortions	3
Previous Premature births	1
Previous Caesarean births	1
Injury of the abdomen	2
Radiations during pregnancy	1
Hereditary	1
Exposure to eclipse	11
Total	25

**Previous Treatment** – Only 15 patients had taken some treatment, 5 underwent some surgical treatment and only 4 patients used prosthesis. This indicates the ignorance or lack of facilities to deal with the limb deficient children.

**DEFICIENCIES**

The deficiencies are classified into three categories:-

**1) Axial Dysmelia** where medial or lateral portion is missing

- A) Radial / Ulnar Hemimelia
- B) Tibial / Fibular Hemimelia

**2) Intercalary Dysmelia:** were middle portion is deficient

- A) Phocomelia
- B) Humeral /Femoral Dysmelia
- C) Radio- Ulnar/Tibio-Fibular Dysmelia
- D) Radial / Fibular Hemimelia
- E) Ulnar/ Tibial Hemimelia

**3) Transverse Dysmelia:** where terminal portion is deficient

- A) Aphalangia
- B) Adactylia
- C) Acheria / Apodia
- D) Distal Ectromelia
- E) Mid Ectromelia
- F) Proximal Ectromelia
- G) Amelia

**Deficiencies in upper limb** – Table 02 show the deficiencies in upper limbs. It was an interesting finding that most common deformity was mid-Ectromelia (below elbow), found in 4 patients ( 1 bilateral case).Left side was little more affected than the right side. Aphalangia was seen in 2 patients.

**Table 02**

Deficiencies	Rt	Lt	Bil	No.of patients	No. of limbs
<b>Transverse Dysmelia</b>					
Aphalangia	-	2	-	2	2
Acheria	-	-	-	-	-
Distal Ectromelia	-	-	-	-	-
Mid Ectromelia	1	2	1	4	5
Proximal Ectromelia	-	-	-	-	-
Amelia	-	-	-	-	-
<b>Axial Dysmelia</b>					
Radial Hemimelia	1	-	-	1	1
Ulnar Hemimelia	-	-	-	-	-
<b>Intercalary Dysmelia</b>					
Phocomelia	-	1	-	1	1
Humeral Dysmelia	-	-	-	-	-
Radio-ulnar Dysmelia	-	-	-	-	-
Total	2	5	1	8	9

**Deficiency in lower limbs** – Table 03 shows deficiencies in lower limbs. Commonest deficiency was mid-electronics (below knee). It was found in 10 patients. Other common deformity was Adactylia in 4 patients.

**Table 03**

Deficiencies	Rt	Lt	Bil	No.of patients	No.of Limbs
Aphalangia	-	-	-	-	-
Adactylia	1	2	1	4	5
Apodia	-	-	-	-	-
Distal Ectromelia	-	-	-	-	-
Mid Ectromelia	4	6	-	10	10
Proximal Ectromelia	-	-	-	-	-
Amelia	-	-	-	-	-
<b>Axial Dysmelia</b>					
Tibial Hemimelia	-	-	-	-	-
Fibular Hemimelia	-	1	-	1	1
<b>Intercalary Dysmelia</b>					
Phocomelia	2	-	-	2	2
Femoral Dysmelia	-	-	-	-	-
Tibio- fibular Dysmelia-	-	-	-	-	-
<b>Total</b>	<b>7</b>	<b>9</b>	<b>1</b>	<b>17</b>	<b>18</b>

**Distribution of deficiencies** – detail of the distribution of deficiencies are shown in Table 04. Involvement of lower limb was more upper limb in single limb deficiency.

**Table 04 : Distribution of deficiencies**

Limb Involved	No. of Patients	Upper Limb	Lower Limb
One upper limb	7	7	-
One lower limb	15	-	15
Bilateral upper limbs	1	1	-
Bilateral lower limbs	1	-	1
One upper one lower limb	1	1	1
<b>Total</b>	<b>25</b>	<b>9</b>	<b>17</b>

**Associated defect** – 18 patients were found to be having various associated defects as shown in Table 05.

**Table 05 : Associated defect**

Defects	No. of patients
Meningomyelocele	7
Constriction ring	4
Spina bifida	3
CTEV	1
CDH	1
Syndactyly	1
Cranioistionosis	1
<b>Total</b>	<b>18</b>

Meningomyelocele was the commonest defect noticed, 4 children with Constriction ring deformity.

**DISCUSSION**

Previously, our study, those greatest numbers for situations were starting with lower class took after followed by middle and upper class. The preponderance in lower class might a chance to be attributed on Different dietary deficiencies. Those initial children of the couple might have been included done 56% of the cases et cetera steady decrease might have been noted.

Exposure of eclipse has been attributed as the fundamental etiological calculated in 44% of our cases and subjectively, Rangan need additionally accounted for similar, What's more second as a relateable point etiological component might have been drug intake.

We have observed the Mid Ectromelia might have been 48% on our examine taken after Toward Adactylia (14. 44%), Phocomelia (10%) What's more Aphalangia (6%). Frantz & O'Rahilly has reported mid Ectromelia 56% case, Adactylia 12. 8%, Phocomelia , 12% and Aphalangia 6. 7%.

**MANAGEMENT**

Management include surgical procedures and prosthetic management. We feel that whereas suitable stump either and bearing or side bearing is available, then conventional prosthesis with or without some modification should be given.

**CONCLUSION**

This incorporates 25 cases for congenital limb deficiencies that bring went to our OPD, D. P. M. R., K.G Medical University Lucknow. Males were included for 70% what's more females previously, 30% cases. The greatest number from claiming cases were starting with lower class. To begin with first baby might have been included to half of the cases and then steady decrease might have been noted. Parents attributed exposure to eclipse as one of the cause of defect and in 40% of cases, no significant history was available. Out of 25 cases, Mid Ectromelia was observed in 46% of the cases, followed by Adactylly. In majority of the cases, Prosthetic rehabilitation in our department was undertaken to overcome their disability.

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