

## Cross Section Study of 'Unduka Puchchha Utpatti'

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**Abstract**

This study titled "Cross section study of Unduka puchchha utpatti" was completed in three steps. This was further divided into Ayurvedic and Modern Literature Review. Observational and non-interventional study of total 100 pre-diagnosed patients of inflamed caecum and appendicitis were studied. Study of utpatti sharir of 'Unduka' was done with the help of blood reports, Haemogram and prakruti's of this diseased patients. Statistical analysis of observations made in the sample size was done by applying 't' test. Results were obtained and plotted in to graphs.

**Keywords :** Undukapuchha ( appendix ) , utpatti ( embryological development ) , Haemogram , prakruti .

**Introduction :**

Ayurveda has it's own view to understand the development of human body and it's various organs. Acharya Sushruta explains development of various organs in sharir sthana. Among these he explains utpatti of 'unduka' in sharir sthana adhyaya four. In this adhyaya, utpatti of various important organs like heart, lungs, liver are described effectively. Here utpatti of unduka is also mentioned by Acharya Sushruta i.e.-

शोणितकिट्ट भ्रवः उण्डुकः । सु. शा ४ / २५

It means that Unduka develops from 'shonit kitta'. As we compare development of Liver according to Ayurveda. Acharya's have opined about the genesis of 'Yakruta' ( Liver ) from Rakta Dhatu ( blood tissue ). Parallel opinion in conventional anatomy states that abundant quantity of blood is responsible for the formation of sinusoids of liver. But it is not similar in case of unduka. Because according to modern embryology Caecum is formed from caecal bud arising from the post-arterial segment of midgut loop. And it cannot be correlated with shonit -kitta concept of Ayurveda.

So to study utpatti of Unduka – understanding the concept of shonit kitta is a very necessary thing.

The word shonit means blood. Now, two concepts of Ayurveda arises in mind about Shonit-kitta-

1) किट्ट : रक्तधातोः मलः पित्तम् ।

आयुर्वेदीय - शब्दकोशः ।

If we consider the word kitta, it means 'Mala'. Then shonit kitta means pitta. It means unduka is formed from pitta.

2) किट्ट : असारभागः ।



आयुर्वेदीय - शब्दकोशः ।

If we consider Asarbhag as a degradation product of blood, composition and fate of blood cells should be studied in detail.

Blood is basically red colored liquid which circulates in our body. Blood is connective tissue, consist of four things namely Plasma, Red blood corpuscles, white blood corpuscles and platelets. Details about degradation of all four component of blood is as below-

- 1) Plasma contains 91-92 % of water.
  - 2) RBCs – As RBCs death occurs by phagocytosis, Heme and Globin is released. Globin is reused for protein synthesis. Heme is disintegrated into Iron and biliverdin. Concentration of Iron, volume of single RBC, amount of Hb present in one RBC all these things should be studied with the help of Red Blood Cell Absolute Count values of Hemogram.
  - 3) WBCs and 4) Platelets
- Both are destroyed by Reticulo-endothelial system. Among these, WBCs are increased in any

inflammatory condition. The average life span of circulating platelets is 8 to 9 days. Life span of individual platelets is controlled by the internal apoptotic regulating pathway. Old platelets are destroyed by phagocytosis in the spleen and liver. So the concept of *shonit kitta* is also studied by analysis of haemogram.

The organ '*unduka*' is compared to caecum by modern science and *undukapuchchha* with appendix. To study *utpatti* of *unduka*, Hemogram in pathological condition of *unduka* will be observed. But prevalence rate of inflamed Caecum is very low. Compared to this, inflammation of appendix is very commonly found condition. As appendix is attached part of Caecum; they both have same embryological development and histological layer, hence appendicitis patients can also be considered here.

Materials and Methods –

#### Materials :-

For observational clinical study, Pre-diagnosed patients of Appendicitis and inflamed caecum. Their *prakruti* and Red cell absolute count of Haemogram observed and analysis done.

#### Methods :-

1) Literature Review :-

2) Observational Clinical Study :-

- a) 87 pre-diagnosed patients of appendicitis and 13 pre-diagnosed patients of inflamed caecum.
- b) Individual case papers were prepared containing *prakruti* related information and haemogram which reflects degradation products of blood. Investigation like ultrasonography were studied to observe anatomical changes.
- c) Collected data has been studied and presented in order to understand if there is any correlation between abnormal values of Red cell absolute count of Haemogram observed in patients of appendicitis and inflamed caecum mentioned in *Sushrut Samhita* and reference to the develops of *Unduka*.

#### Method for data collection:

Cross sectional type of study, diagnosed patient of caecum related pathology and appendicitis selected. Data collected and compared with literature. Result drawn from observations.

#### Criteria for assessment :-

Patient's criteria :

1) Inclusion criteria :

- a) Pre-diagnosed patients of Appendicitis and inflamed caecum have been selected
- b) All stages of appendicitis will be included.
- c) Both genders were included.
- d) All age group will be included
- e) Sample size was taken 100 .

2) Exclusion Criteria :

- a) Patients having Hb less than 10 mg/dL.

Were excluded.

#### Methodology

100 pre- diagnosed patients of appendicitis and inflamed caecum were selected as per the selection criteria mentioned above.

The case record form or case paper of each patient was divided into three parts.

1<sup>st</sup> part :- consisted of general information like name of patient, sex, age etc

2<sup>nd</sup> part :- consisted of data regarding *prakruti* .

3<sup>rd</sup> part :- consisted of data regarding haemogram of patients studied.

Ultrasonography report of each patient was noted.

#### Discussion

Observational and non-interventional study of total 100 pre-diagnosed patients of inflamed caecum and appendicitis were studied. Study of *utpatti sharir* of '*Unduka*' was done with the help of blood reports, Haemogram and *prakruti*'s of this diseased patients. Statistical analysis of observations made in the sample size was done by applying 't' test. Results were obtained and plotted in to graphs.

#### Conclusion

- *Unduka* and *Undukapuchchha* related pathological conditions are observed more in age group 20-40 yrs.

- Unduka and Undukapuchchha related pathological conditions are observed more in males.
- Pitta Pradhan people are more prone towards unduka and undukapuchchha related pathological condition, so it is associated with 'utpatti' of unduka i.e. shonit kitta as pitta.
- There is no significance difference between lower standard value and mean value obtained by observational data in case of Hb, MCH, MCHC. In case of PCV, MCV mean values are found greater than lower standard values. So conclusion can be drawn that there is no association between lower standard value and average value of Red Cell Absolute count in appendicitis and inflamed caecum patients.

**References**

1. Bhatvadekar MV, edited Marathi Pratyaya Shabdan Kosh, 1<sup>st</sup> edition, Pune, Sadhana Prakashan publication, March 2000
2. Ed Garg Krishna, BD Chaurasias Human Anatomy, Second Volume, 6th Edition, New Delhi, CBS Publishers and Distributors, Reprint 2014
3. Romanes GJ, Cunninghams Manual of Practical Anatomy, 15<sup>th</sup> Edition, Oxford Medical Publications, Reprint 2014
4. Ghanekar Bhaskar Govinda, Sushruta Samhita, Sharir Sthana, Ayurvedarahasyadipika Commentary, New Delhi, Meharchand Lakshmandas Publication, Reprint Nov, 2008
5. Kaviraj Atrideva Gupta, Ashtanga Sangraha Vol I, Krishnadas Academy, Varanasi, 1993.
6. Guyton and Hall, Textbook of Medical Physiology, Tenth Edition, New Delhi, An Imprint of Elsevier, Reprint 2003.

