



Case Study

MANAGEMENT OF ACROMEGALY WITH AYURVEDA- A CASE STUDY

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ABSTRACT

Acromegaly is a disease caused by excessive secretion of growth hormone by pituitary gland due to tumour (adenoma). Excessive secretion of growth hormone causes disfigurement and if this affects internal organs it may cause even death. Management of Acromegaly by contemporary medicine is not very successful as surgery (in non-permissible conditions), radiation therapy and use of somatostatin analog, growth hormone antagonist etc., all have limited role and are not able to annihilate the disease. The paper gives the description of a known case of Acromegaly presented with all the cardinal sign and symptoms along with major complications (venous obstruction, loss of peripheral vision, etc.). The patient was taking contemporary medicines from the starting of appearance of sign of disease but didn't get any significant relief therefore he came to seek Ayurvedic treatment. The patient was managed with Ayurvedic medicines and Panchakarma procedure including *Shirodhara* for duration of 15 days. Total two sitting of *Shirodhara* were given one month apart showed considerable improvement in all the presenting symptoms. The increasing sole size, diminished vision and excessive sweating were remarkably reduced with the improvement of overall well being of the patient.

KEYWORDS: *Shirodhara, Raktadusti, Growth hormone.*

INTRODUCTION

Case Study

A 22year male presented with the complaints of severe headache, continuous increasing size of sole, giddiness, blackout, short term memory loss, feeling of heaviness in body and diffuse body pain presented in the O.P. D of Choudhary Bhram Prakash Ayurveda Charak Sansthan, New Delhi. The symptoms were present from 1^{1/2} years, and get worst from last 6 months. The patient had a history of varicose veins of lower limbs which was operated 6 months back. No significant family history was obtained. After physical examination patient was admitted and Ayurvedic treatment was started (O.P.D No- 41203 & I.P.D No- 2445 on 13.08.2013).

General physical examination reveals no Pallor, Icterus, Cyanosis, Clubbing, Oedema, Lymphadenopathy, Raised Juglar Venous Pressure, etc. On inspection following signs were obvious:

1. Lower incisors protrude in front of upper incisors or protrusion of lower jaw with wide spread teeth known as Prognathism¹ (lantern/ bull-dog jaw) was present.
2. Prominence of supraorbital ridge with enlargement of face due to enlargement of frontal, maxillary and ethmoidal sinuses and frontal bossing were present.
3. Nose and ear were large as well as triangular.
4. Macroglossia² (large tongue with indentations from the teeth) with thick lips was obvious.
5. Hypertrichosis³ (brushy eyebrows) and Hyperhidrosis⁴ (excessive sweat production) were also seen.

6. Brown to black, poorly defined, velvety hyper-pigmentation⁵ of the skin in the posterior and lateral folds of the neck, the armpits, groin, navel and forehead was observed (Acanthosis nigricans).⁶
7. Spade shape hands were found (thick and large hands with large and square tips fingers).⁷
8. Bitemporal hemianopia⁸ (vision is missing in the outer half of both the right and left visual field) was present due to pressure on optic chiasma by pituitary adenoma.

Differential Diagnosis

Gigantism⁹

1. Late onset - the onset of the disease was after puberty (after the fusion of epiphysis) contrary to that of Gigantism in which there is early onset of the disease.
2. The height of the patient was normal.

Marfan Syndrome

1. No arachnodactyly was present (though the fingers were large but the hands as a whole were thicker, broader and finger tips were square).
2. No cardiac involvement was found (ECG was found to be normal)
3. The onset of the disease was after puberty.

Sotas Syndrome

1. Symptoms were not present since childhood i.e. onset of the disease was after puberty.
2. Height of the patient was normal i.e. not Gigantism.
3. Mental retardation and defective coordination was not found.

Investigations

- Estimation of Growth Hormone by Oral Glucose tolerance test: It was found to be > 10ng/ ml.
- Plasma Somatomedin C level: It was found to be elevated.
- Serum Insulin like Growth Factor was found to be elevated.
- Alkaline Phosphatase and S. Phosphorus level was found to be considerably raised.
- X ray of Skull (lateral view) reveals following:
 - ✓ enlargement of Pituitary fossa,
 - ✓ enlargement of Jaw and Sinuses,
 - ✓ enlargement of supraorbital ridges.
- MRI of Brain reveals Pituitary Adenoma and MRI of Lumbo- Sacral spine showed Kyphoscoliosis and Osteoporosis.
- Heel pad thickness was raised (24mm).

The following Signs suggest that the disease was progressive and the modern medication taken by the patient were not efficient enough to arrest the pathogenesis:

1. Increasing headache (showing raised intracranial pressure due to adenoma)
2. Increasing size of sole (the patient was unable to wear even 10 number shoes)
3. Excessive sweating
4. Increasing visual loss
5. Continuously raising level of Growth Hormone and Somatomedin C level.

After trying modern medications for one and half years without any significant relief in the symptoms the patient came to seek Ayurvedic consultation. As no previous documentation was reported for management of Acromegaly with Ayurveda it seems to be a difficult task.

Treatment Protocol

1. Principle of Treatment

Doshapratyanika Chikitsa

In Ayurveda, Acharya Charak says that where it is difficult to name the disease or to make any definite diagnosis, then treatment should be planned according to the nature of *Dosha* involved site of origin and way of manifestation.¹⁰

Symptoms like *Shirashula* (headache), *Svedabahulya* (excessive perspiration), *Tamashcatidarshan* (blackouts), *Tvakavikara* (*Acanthosis nigricans*), etc suggests that involved *Dosha* is *Rakta*¹¹. Continuous growth of soles, enlargement of jaw, sinuses, supraorbital ridges etc. suggest that *Vata dosha* is also vitiated. Thus the disease was diagnosed as *Raktaja Shirashula* and management was planned according to this. To pacify vitiated *Rakta* there are four probable treatments;

1. *Raktaprashadhaka* (like *Manjistha*, *Sariva*, *Guduci* etc.)
2. *Raktavardhaka* (like *Mandoor*, *Louha*, etc.)
3. *Raktakarshaka* (like *Jaoulakavacaran*, *Shiravedhana*, etc.)
4. *Raktastambhaka* (like *Vasa*, *Durva*, etc.)

In the present case *Raktaprashadhaka chikitsa* (treatment methodology) was chosen, because remaining three were not applicable.

Doshapratyanika Chikitsa (Consider only Samchaya, Prakopa and Prasaravastha of Dosha)

Prakriti: *Kaphaja- Vataja* (Psychosomatic constitution of Patient)

Vikriti (Nature of the disease)

Dosha- Vata dominated *Pitta*

Dushya- Rakta, Asthi

Srotas- Raktavaha, Asthivaha

Samuthan- Bijabhagavayava dusti

Adhistan- Hridaya (Karyakari), Asthi

Assessment of Vyadhibala (on the basis of involvement of Dosha, Marga, etc.)

Pravara / Madhyama / Avara

Assessment of Vyadhi and Atura Bala

- *Rogabala Pravara Rogibala Pravara - Samsodhana Chikitsa*
- *Rogabala Pravara Rogibala Avara - Samsamana Chikitsa*
- *Rogabala Avara Rogibala Pravara - Nidanaparivarjana Chikitsa*
- *Rogabala Avara Rogibala Avara - Samsamana Chikitsa*

Assessing the strength of patient and disease it was decided to give both *Samshaman* and *Samsodhana chikitsa* to the patient.

Management

1. *Vr. Vatacintamanirasa* – 1 tab twice in a day with milk

2. *Mahamanjisthadi kwath*- 50 ml twice in a day

3. *Arjunarista* – 2 TSF

+ *Lauhasava* – 2 TSF } twice in a day with equal amount of water after meal

4. *Tapyadi Lauha* – 2 tab twice in a day with water

Panchakarma Therapy: *Shirodhara* with *Takra*

DISCUSSION

In first 15 day's treatment the patient showed significant relief in severe headache, giddiness and blackouts. The size of the sole was stopped increasing after two sitting of *Shirodhara* treatment given 3 months apart. There was considerable decrease in the level of Growth Hormone and Somatomedin C level showing that the *Shirodhara* like non-invasive technique has modulate the secretion of hormones through pituitary. Though the size of adenoma was not found to be reduced even after 3 months of treatment but the significant reliefs in the symptoms related to raise intracranial pressure due to adenoma justify the effect of *Shirodhara*. In the procedure of *Shirodhara*, liquid is poured over forehead from a particular height that creates a particular pressure and vibration over the forehead. These vibrations are amplified by the hollow sinus present in the frontal bone. These vibrations are then transmitted inwards through cerebrospinal fluid (CSF) of subarachnoid space of brain. These vibrations either amplified or dampen the encephalic electromagnetic waves which in turn may activate the functions of thalamus and the basal fore brain which then brings the amount of serotonin and

catecholamine to the normal stage inducing the sleep that reduces the stressor hormones' secretions (cortisols) and thus in this way probably reduces the tension complaints like headache and fatigue. According to Ayurveda the patient is suffering from *Rakta pradoshaja vikara* symptoms like giddiness, blackouts and headache are the supporting features for this diagnosis. Therefore *Raktaprasadaka* and *Raktavardhaka* was given to the patient like *Tapyadi lauha*, *Mahamanjisthadi kvath* and *Lauhasava*. *Hridaya* (heart) is considered as a seat of *Raktavaha srotas* therefore *Arjunarista* was added to protect the heart. *Vridhhi* (growth) and *Kshaya* (reduction) occurs due to *Vata* and as there was constant increase in sole size, *Vr. Vatacintamani rasa* (herbo-mineral drug) having *Parada*, *Gandhaka*, *Svarna*, *Svarnamashika bhasma*, *Rasasindura*, etc. was added to pacify vitiated *Vata dosha*. *Swarna* should be given in low dose as it acts as a catalyst and strength the chemical reaction. In small amount *Swarna* act as immunomodulator and help in down regulation of T lymphocytes. Till the time of reporting the case report the patient had taken two sitting of *Shirodhara* procedure for 15 days duration and showed significant improvement in all presenting symptoms. Acharya Charka has described eight types of condemnable persons in "*Astoninditiya adhyaya*", acromegaly is among them. According to Acharya all these persons are difficult to treat as they require lifelong management; therefore the patient was advised to take regular Ayurvedic treatment for proper management of disease.

CONCLUSION

Management of Acromegaly needs expertise approach as the recommended treatment strategy varies according to the severity of disease. Surgery is an option for better treatment at earlier stage but once the tumour crosses the sella (anatomical site of pituitary gland) there is lower chance of cure. The remaining options in contemporary medicine includes use of radiation therapy and use of Somatostatin analog but these two also have limitation and not very fruitful in regressing the growth of adenoma. In such discouraging condition *Shirodhara* like non-invasive technique may prove to be great help to the patients. Ayurvedic management due to its safe and

holistic approach uproot the disease in very uncomplicated way as suggested by this paper.

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