A Case study on Ayurvedic management in complications of micro discectomy

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Abstract:
Lumbar micro discectomy is a minimally invasive surgical procedure performed on patients with a herniated lumbar disc. It is considered as a safe procedure but having the complications like bleeding, infection, leaking of spinal fluid, dural tear, injury to blood vessels or nerves in and around the spine and bowel bladder incontinence. This is the case report of a 46-year-old man who underwent lumbar micro discectomy presenting with symptoms of sciatica along with bladder incontinence and irregular bowel habit. The condition diagnosed as Gridhrasi and treated with selected internal medications and Panchakarma therapy. After the IP management patient attained bowel and bladder regularity, radiating pain is relieved and power of sensation is improved.

Key words: Gridhrasi, Micro discectomy, Panchakarma therapy, Sciatica.

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Introduction:
Discectomy is the surgical procedure to remove the damaged portion of a herniated disc. The recurrence rate after lumbar discectomy is reported at 1% to 21%, showing a significant range with many studies on the risk factors causing recurrent herniated lumbar disc. [1][2] Few studies reported on increase in pain after micro discectomy, [3][4][5] and decrease in health-related quality of life after such operations [6]. Sciatica, the pain caused by the irritation of sciatic nerve is a common cause for Low back ache. The common symptoms of sciatica include low back pain which radiates through the back of thigh and down through the leg, hip pain, numbness and difficulty for moving the leg. A variety of surgical and non-surgical treatment has been used to treat sciatica.

Gridhrasi is a disease explained under vatavyadhi, with presentations like sthamba (stiffness), ruk (pain), thoda (pricking sensation), spandhana (twitching sensation) on areas like sphik (hip), kati (waist), prishta (back), Janu (knee), jangha (thigh) and pada (calf region) [7]. It is considered as a Nanathmajavatavikara, (diseases of vata) having two varieties like Vataja and Vatakaphaja. Ayurveda has various treatment options through Sodhana (purification therapy) and Samana (palliative care) in these clinical conditions. The Ayurvedic management in complications of micro-discectomy with selected internal medications and Panchakarma measures is reported here. After treatment patient got marked improvement from the symptoms and also improvement in health status.

Case summary:
A Hindu, married 46-year-old male patient from Malappuram attended the Panchakarma OPD of VPSV Ayurveda College Kottakkal on 24/4/2019. He complained of low back pain radiating to left lower limb with heaviness and numbness along with irregularity in bowel movement and bladder incontinence for the past 7 months. A detailed history of present illness revealed that patient had a history of fall before 1 year. There after the low back pain developed and gradually the condition worsened. He took conservative management and finally underwent lumbar micro discectomy at L5 – S1. After surgery he got complete relief from pain. Few weeks later patient felt numbness and mild sensory loss over posterior aspect of left lower limb. He had difficulty for bowel movement and felt urgency for micturition. Two months after pain started again at low back, radiating to left lower limb with heaviness and numbness. Locomotor system examination, revealed grade 1 tenderness over L4 – L5 spine and surgical scar during deep palpation. The forward flexion of lumbar spine was painful. The SLR test was + ve over left at 45⁰, Braggard’s test and FNST were found to be + ve over left. On Neurological examination, in sensory system the touch, pain, temperature and vibration sense were found to be diminished over posterior
aspects of left lower limb. Motor system examination, revealed flabby calf muscles with grade 4 power over left lower limb. MRI of lumbar spine, showed mild retrolisthesis of L5 over S1, diffuse disc bulge with central extrusion of L5 S1 disc and severe spinal canal stenosis.

Therapeutic focus and assessment:

Table-1: Internal medicines

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Dose</th>
<th>Time</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>GandharvahasthadiKashaya</td>
<td>90 ml</td>
<td>6 am, 6 pm</td>
<td>Amapachana+Vathanulomana</td>
</tr>
<tr>
<td>Gandherverandathailam</td>
<td>5 ml</td>
<td>6 am</td>
<td>Anulomana, Balya to Katiprishta</td>
</tr>
<tr>
<td>Dhanwantharam Kashaya</td>
<td>90 ml</td>
<td>11 am, 3 pm</td>
<td>Vatakaphahara,</td>
</tr>
<tr>
<td>Sahacharadithaila</td>
<td>5 ml</td>
<td>3 pm</td>
<td>Sosha, Supthi, Vatahara</td>
</tr>
<tr>
<td>Chandraprabha Gutika</td>
<td>2-0-2</td>
<td>9 am, 9pm</td>
<td>Action on Muthravahasrothas</td>
</tr>
<tr>
<td>Balarishta</td>
<td>15 ml</td>
<td>At bed time</td>
<td>Agnivardhana, vatashammana</td>
</tr>
<tr>
<td>Gomuthra arka</td>
<td>5 ml</td>
<td>With arishta</td>
<td>Vatakaphahara, Immunomodulant.</td>
</tr>
</tbody>
</table>

Table-2: Treatment procedures

<table>
<thead>
<tr>
<th>Treatment</th>
<th>No. of days</th>
<th>Medicines</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local lepana on painful area</td>
<td>7 days</td>
<td>Nagaradilepa churna + Dhanyamla</td>
<td>Sulahara</td>
</tr>
<tr>
<td>Adhonabhhipichu</td>
<td>14 days</td>
<td>Dhanwantharam thaila</td>
<td>Muthradharana</td>
</tr>
<tr>
<td>Dhanyamladhara</td>
<td>14 days</td>
<td>Dhanyamla</td>
<td>Rookshana</td>
</tr>
<tr>
<td>Vasthi</td>
<td>7 days</td>
<td>Vaitharana vasthi &amp; Gridhresiha vasthi</td>
<td>Pakvasayagatha doshaharana</td>
</tr>
<tr>
<td>Snehapanam</td>
<td>7 days</td>
<td>Sahacharadi thaila mezhpaka</td>
<td>DSHU, utkhleshana,</td>
</tr>
<tr>
<td>Abyanga + Ushmasweda</td>
<td>3 days</td>
<td>Dhanwantharam thaila</td>
<td>Dosha Draveekarana</td>
</tr>
<tr>
<td>Virechana</td>
<td>1 day</td>
<td>Gandherveranda thaila (30 ml)</td>
<td>Shodhana</td>
</tr>
<tr>
<td>Swedana</td>
<td>7 days</td>
<td>Jambeera pinda sweda</td>
<td>Sula, Sthamba, Gouravahara</td>
</tr>
</tbody>
</table>

Result and Discussion:

At the end of IP treatment, the radiating pain was relieved, power of sensation improved, attained bowel and bladder regularity, and heaviness completely disappeared. On the first follow up, after one month the SLR test was found to be negative, all the movements of lumbar spine were possible and numbness completely reduced. In the overall treatment dhanyamladhara was found to be more
effective. The power of sensation improved and numbness reduced after dhara (pouring of liquid). After snehapanas (intake of unctuous substances) marked difference in numbness was noticed.

Here the clinical presentation of the patient is similar to the features of Gridhrasi. Presence of ruk (pain), stamba (stiffness), supthi (numbness) and gourava(heaviness) indicate the involvement vata and kapha. The dosha involved are vyanavata, apanavata, and slesha kapha. The vitiation of rakta, mamsa, asthi and majja are noticed. The affected srothas are rakthavaha, asthivaha, majjavaha, purishavaha and muthravaha srothas. Vyadhi is considered as nava (newly diagnosed) and amayuktha (associated with ama lakshana). The treatment adopted are rukshana (drying therapy), snehana (oleating therapy), sodhana(purification), and general line of treatment for vatavyadhi.

In the initial days Nagaradilepa churna advised on the area of tenderness acted as sulahara (reduces pain). Nabipichu was found to be beneficial for mutradharana (control urine evacuation). Dhanwanthara thaila was selected for Nabipichu. This thaila have a property of mutradharana. The treatment started with dhanyamladharana. Dhanyamla[8] act as vatakaphahara and have action on vasthi. Here patient have mamsasada (wasting of muscles) and sparsanendriyavaigunya (impairment in tactile sensation). Dhara provide the action like dridatha (firmness), sthairya (steadiness) and clarity towards indriya (sense organs). Vasthi is helpful for Pakwasayagatha dosaharana (removal of doshas from lower abdomen). Vaitharanavasthi[9] have Ruksha (rough) thiksha (penetrating) and kaphavatahara action and help to get immediate relief from pain.Here the patient had G4 power on left lower limb and calf muscles were flabby. So the Gridhrasihara vasthi[10] with ingredients like mamsarasa, ikshuras, ksheera and, ghritha provided more brimhana (nourishing) action.

In the second stage snehapanas was selected after considering the status of koshta (GI tract) and agni (internal fire). The season was varsharitu, patient had krurakoshta, and vatakapha predominant condition. So thaila was selected for snehapanas. Sahacharadi thaila was selected which has action on sosha (wasting), supthi (numbness) and vatahara. Virechana done with gandherveranda thaila for the purpose of mrudu shodhana (mild purification) and have effects like srothoshodhana (clearness srothas) and indriya prasadana (beneficial for sense organs). Snigdha virechana was selected because the patient had krurakoshta.

The snehana (oleation) and swedana (sudation) are considered as the general line of treatment of vathavyadhi. Jambeera pinda sweda was selected in the final stage. The jambeera pinda sweda was considered as a Snigdha sweda. This swedana was helpful for the reduction of pain and heaviness.

In the initial stage Gandharvahasthadi kashaya given for vatanulomana (downward movement of vata) and amapachana.
(digestion of ama). Gandherveranda thaila given for proper bowel movement and give strength for katiprishta desa (low back and surrounding). Dhanwanthara kashaya also beneficial for vata aggravated vikara. Chandraprabha gudika advised for the action on muthravaha srothas. Balarishta was given for agnivardhana and vathasamana. Gomuthra arka was given along with arishta. It is vatakaphahara in nature and arka have immunomodulatory action\[11\].

**Conclusion:**
This single case study proves that selected Ayurvedic medicines and panchakarma treatment have a result in the management of complications of micro discectomy. The treatments are found to be safe and helps to formulate a protocol in such cases.

**References:**

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