IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 15, Issue 10 Ver. IV (October. 2016), PP 88-90
www.iosrjournals.org

Integrated Approach of Naturopathy And Physiotherapy in Patient With Post Operative Hip Arthroplasty-A Case Report

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Abstract: *Avascular Necrosis (AVN) of the bone, aseptic necrosis and ischemic bone necrosis, is a relatively common disease characterized by death of the cellular elements of bone and marrow due to the interruption of the blood supply. Patients tend to suffer from post surgical pain, limitataion of motion with stupping gait along with aggravating of pain, numbness & spasm in gluteal region. This condition has a number of charactertics clinical and radiographic signs that differentiate it from other osteonecrotic conditions. 'Mitchell's GRADE A' with marrow edema in head & neck regions of femur being the first charactertics of diagnostic feature. This is a case report of single post surgical issues with history of severe pain and difficulty in walking.*

I. Introduction

Avascular Necrosis of the bone, also known as Osteonecrosis, aseptic necrosis and ischemic bone necrosis, is a relatively common disease characterized by death of the cellular elements of bone and marrow due to interruption of the blood supply.[1] Most individuals who develop AVN are between ages of 20 and 50 years. The hip (femoral head) is the most commonly affected sites for clinically significant avascular necrosis.Osteonecrosis of femoral head is a devastating disease which often leads to the destruction of the hip. It is employed only in early stages of arthritis and its results are still of controversial efficacy and most of patients ultimately require total hip arthroplasty.[2,3] Patients present with severe pain, gluteal region spasm and numbness with difficulty in walking. Recognition of these condition signs are important in order to make the post operative care and prevent possible complications.

II. Case Report

We report a case of 65 year old male with surgical procedure [Uncemented right & left total hip replacement] for arthritis of both hips secondary to avascular necrosis of femur head. He also provided a history of multiple surgical procedure for spine like lumbar discecteomy, arthritis of knee earlier, including necrosis of both femoral head's with marrow edema in head & neck regions of left femur and acetabulum. On Clinical examination, the patient demonstrated dysmorphic features with short range of movement and proportionally shorter right limbs. He had a large dense mass of bone with limitation of movement in the back of the spine. MRI of spine investigation revealed arthritis of both hips secondary to avascular necrosis of femur head and S/P L4-L5 Microdiscectomy bilateral core decompression. Lower extremities shows dryness of skin and swelling of both legs.The patient was subjected to special tests like Thomas test shows negative; Trendelenberg test couldn't be done due to severe of pain, telescopy becomes negative and others are like nelation, shoemaker's line normal. Femur radiographs showed suggestive of avascular necrosis of both femoral heads [MITCHELL'S GRADE A] as described with marrow edema in head & neck regions of left femur and left acetabulum (Fig 1A).The(Fig 1B)Both femorals heads shows osteonecrotic changes.

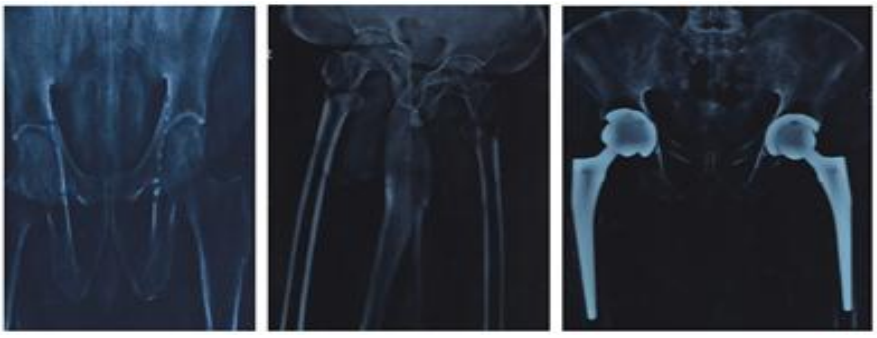

Fig 1: 1A- Avascular necrosis of both femoral head with Marrow edema in head & neck regions of left femu and acetabulum, 1B- shows femoral heads osteonecrotic changes in both femurs.

Fig 2. Post Surgical X-rays shows artificial uncemented 32mm biolox delta ceramic femoral head (+5) size was Implanted.

III. Discussion

Osteonecrosis of the hip is characterized pathophysiologically by ischemia of bone marrow and eventual death of trabecullar bone. The key of successful management of hip osteonecrosis is early treatment, prior to onset of subchondral fracture and cartilage damage. [4-6] Approximately, 5%-18% of all hip arthroplasties are completed on patients with a primary diagnosis.[7,8] During diagnostic classification of osteonecrosistic medial thigh or groin pain with limitation of hip motion in patient's less than 50 years of age should raise the suspicion of osteonecrosis. Patients usually present with slow onset, insidious groin pain that may be unilateral or bilateral. Symptoms are generally amplified with weight bearing and relieving by rest. The pain may also be in gluteal region, kness, or anterior and lateral thigh. Range of motion becomes limited, particularly hip abduction and internal rotation and logrolling elicits pain. [9] Early stages of this disease can be often asympotatmatic, and some patients present after articular surface collapse has already occurred. Hip prognosis can be significantly improved with early diagnosis, before articular collapse.

Other potential etiologies for osteonecrosis include childhood history of slipped capital femoral epiphysis (SCFE), deep sea diving or other hyperbaric conditions, SLE and other connective tissue disorders, fat embolus syndrome, gout and metabolic bone disease.[10,11]The diagnosis is primarily based on the afore mentioned radiographic features (Pre & Post Surgery).Fig.2. However, a post operative rehabilitation [Physiotherapy and Naturopathy] remains the gold standard treatment with longer duration of passive movement for duration of 15-20 minutes daily. Majority of the soft tissue heals in the first 12 weeks after surgery with minimal passive movements for total hip and legs (Table.1.1.1).Specific treatment options with supportive measures, prevention and management consisting the most important aspects of clinical care for the pain and disability from the arthritis influencing the quality of life and daily activities.

IV. Conclusion

Osteonecrosis is a pathology commonly seen in adults, in which collapse of femoral head and early onset of osteoarthritis may eventually necessiatate hip arthroplasty when non-operative measures. Basic science research to understand the pathophysiology and to develop therapies that can be translated to clinical application has progressed rapidly.Similarily, modern technologies improvements in surgical treatment methods have also improved outcomes over the past two decades and will continue to help the patient recover from this functionally debilitating joint disease. The importance of recognition of these features in the diagnosis and prevention of future complications is stressed in this case report with integrated approach.

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TABLE 1.1.1 Naturopathic and Physiotherapic intervention

DAY	Morning Rx-NaturopathyRx+Diet	Evening Rx	DAY	Morning Rx	Evening Rx
1.	Diet with Ragi	PM with ST-Duration-10Min	12.	Boiled Diet	Walking with ST
2.	Steam Bath+BD	PM with ST-Duration-10Min	13.	Oil application +IR-10 Min	Walking with ST
3.	Boiled Diet	PM with ST-Duration-10Min	14.	Boiled Diet	PM with ST-10M,BS -5
4.	Boiled Diet	PM with ST-Duration-10Min	15.	Sauna Bath	Walking with ST
5.	PM to Legs	PM with ST-Duration-10Min	16.	Boiled Diet	Walking with ST
6.	Boiled Diet	PM with ST,WA with ST-15M	17.	NIB with Epsom	PBS-10min with walking
7.	Boiled Diet	PM with ST,WA with ST-15M	18	Diet with Ragi	Quadriceps ST with WA
8.	Diet with Ragi	PM with ST,WA with ST-15M	19.	Diet with Ragi	Quadriceps ST with WA
9.	Oil application + IR-10 Min	PM with ST,WA with ST-15M	20.	Boiled Diet[Rice with Veg.Salads	PM with ST-15-20Min
10.	Boiled Diet	PM with ST,WA with ST-15M	21.	Boiled Diet	Walking aids-15-20Min
11.	Boiled Diet	PM with ST,WA with ST-15M	22.	Boiled Diet	Adductors Strength(Chair Strengthening Exercises) -10-20Min. Walking pattern-20Minutes

Naturopathic Intervention
PM-Partial Message, IR-Infrared Lamp/Light, BOILED DIET- Chapatti with Vegetable Salads, BD-Boiled Diet

Physiotherapy Intervention - PM-Passive Movements, ST-Sustained stretching, AM- Active Movements, WP-Walking Pattern, PBS- Polar band Stretching.