International Journal Dental and Medical Sciences Research
Volume 3, Issue 2, Mar-Apr. 2021 pp 719-721 www.ijdmsrjournal.com ISSN: 2582-6018

Evaluation of the Role of Laparoscopic Uterosacral Nerve Ablation (Luna) In the Management of Chronic Pelvic Pain (Cpp)

TilwaniKavita P.[1], TilwaniVivek P.[2], Sankpal J. T.[3]
[1,2]*S. P. Nursing Home, Mumbai, Maharashtra State, India*
[3]*Grant Government Medical College, Mumbai, Maharashtra State, India.*
Corresponding Author: TilwaniKavita P.

Submitted: 25-03-2021 Revised: 03-04-2021 Accepted: 06-04-2021

ABSTRACT:
Introduction: Chronic Pelvic Pain (CPP) is a common and debilitating condition often affecting the quality of lives of women. One of the modalities of its treatment is Laparoscopic Uterine Nerve Ablation (LUNA).
Aims and Objectives:
1. To study the safety and efficacy of LUNA for pain relief in women with CPP
2. To evaluate patient satisfaction as well as any adverse effects from LUNA at 3 months, 6 months and 1 year periods after the procedure.

Materials and Methods:
This is a descriptive case series of 25 patients who attended our private clinic who underwent LUNA at various tertiary level institutes during the period from 2016 to 2019.
Results:
There was substantial improvement in the quality of lives of patients after LUNA Procedure. Approximately 64 % of the women were completely pain free after the procedure. There were no serious morbidities or mortalities following this procedure in our study.
Conclusion:
LUNA is a simple procedure and effective procedure which can safely be used to treat with refractory CPP not relieved by medical therapy. LUNA will go a long way to improve the quality of lives of several women globally.
KEYWORDS:LUNA, Laparoscopic Uterosacral Nerve Ablation, Chronic Pelvic Pain, CPP.

I. INTRODUCTION

Chronic Pelvic Pain (CPP) is defined as intermittent or constant pain in the lower abdomen or pelvis of at least 6 months duration, not occurring exclusively with menstruation or intercourse and not occurring with pregnancy.

It is a symptom, not a diagnosis, and dysmenorrhea, deep dyspareunia and intermittent pain constitute its main symptom complex. CPP is a very common condition accounting for 10 % of OPD visits to a gynaecologist and about 40 to 50 % of all diagnostic laparoscopies globally. CPP has a profound impact on a woman's health and quality of life including an economic impact through loss of working hours. Recent developments in laparoscopic surgery make ablation of nerve plexuses and ganglia in the uterosacral ligaments (the procedure being known as "Laparoscopic Uterine Nerve Ablation (LUNA)", a practically treatable option. Several studies have clarified the role of LUNA to control CPP but recent Cochraine Reviews have shown that currently available research evidence on LUNA is inconclusive and therefore further studies are required to study the safety and efficacy of this procedure.

II. AIMS AND OBJECTIVES

1. To study the safety and efficacy of LUNA for pain relief in women with CPP.
2. To evaluate patient satisfaction as well as any adverse effects from LUNA at 3 months, 6 months and 1 year periods after the procedure.

III. MATERIAL AND METHODS

This is a descriptive case series of 25 patients who attended our private clinic who underwent LUNA at various tertiary level institutes during the period from 2016 to 2019. 25 patients with CPP were thoroughly counselled, their detailed history was noted and evaluated, they were thoroughly examined and investigated and were taken up for LUNA Surgery after obtaining specific and appropriate consent for the same. The LUNA Procedure involved carefully inspecting the posterior leaf of the broad ligament and the uterosacral ligaments to identify the course of the ureter and thin walled pelvis veins in order to avoid

International Journal Dental and Medical Sciences Research
Volume 3, Issue 2, Mar-Apr. 2021 pp 719-721 www.ijdmsrjournal.com ISSN: 2582-6018

them. The uterosacral ligaments were then identified by manipulation of the uterus in the right and left lateral planes. Ablation of the uterosacral ligament was carried using a 5 mm bipolar electrodiathermywith a bipolar Maryland Forceps (the main unit of the diathermy is adjusted at 30 Watts and the energy is applied for 5 seconds in order to deliver a dose power of 150 Joules of coagulation current of each uterosacral ligament). Thereafter, complete transection of the uterosacral ligament was done using 5 mm curved scissors supplied with the ability to use electrodiathermy, if needed. The ablation was started as close to the posterior aspect of the cervix as possible and continued for a minimum of 1 cm. posteriorly on either side. The aim of the procedure was to destroy the sensory nerve fibres and ganglia as they leave the uterus and come to lie within the uterosacral ligaments. All these patients were evaluated during the intraoperative and immediate postoperative period as well as at intervals of 3 months, 6 months and 1 year after the procedure.

IV. RESULTS

1. AGE WISE DISTRIBUTION OF PATIENTS:

AGE GROUP	NO. OF PATIENTS
20 TO 25 YEARS	5 (20 %)
26 TO 30 YEARS	7 (28 %)
31 TO 35 YEARS	6 (24 %)
36 TO 40 YEARS	4 (16 %)
41 TO 45 YEARS	2 (08 %)
> 45 YEARS	1 (04 %)

TOTAL = 25 PATIENTS

2. PRIMARY PATHOLOGY CAUSING CPP:

PRIMARY PATHOLOGY CAUSING CPP	NO. OF PATIENTS
Primary dysmenorrhoea	2 (08 %)
Endometriosis	9 (36 %)
Adenomyosis	4 (16 %)
Past history of pelvic inflammatory disease	2 (08 %)
Postoperative adhesions	1 (04 %)
Past history of genitourinary tuberculosis	2 (08 %)
Unknown	5 (20 %)

3. TYPE OF PAIN OR DISABILITY:

PAIN OR DISABILITY	NO. OF PATIENTS
Dysmenorrhoea	25 (100 %)
Deep dyspareunia	18 (72 %)
Constant dull aching pain	8 (32 %)
Intermittent intermenstrual pain	5 (20 %)
Painful defaecation	18 (72 %)
Painful micturition	10 (40 %)
Severe pain causing inability to work	12 (48 %)
Anxiety / depression due to pain	12 (48 %)

4. INTRAOPERATIVE OR IMMEDIATE POSTOPERATIVE COMPLICATIONS:

TYPE OF COMPLICATION	NO. OF PATIENTS
Anaesthesia complication	0 (00 %)
Haemorrhage requiring blood transfusion	1 (04 %)
Injury to surrounding viscera	0 (00 %)
Technical difficulty due to obliteration of Pouch of Douglas	2 (08 %)
Immediate postoperative complaints or complications	0 (00 %)

International Journal Dental and Medical Sciences Research
Volume 3, Issue 2, Mar-Apr. 2021 pp 719-721 www.ijdmsrjournal.com ISSN: 2582-6018

ICU Admission or prolonged hospital stay	0 (00 %)

5. POSTOPERATIVE PAIN RELIEF IN TERMS OF VAS (VISUAL ASSESSMENT SCALE)":

VAS SCORE	NO. OF PATIENTS DURING SPECIFIC POSTOPERATIVE PERIOD		
	3 MONTHS	6 MONTHS	1 YEAR
9 to 10 (Excellent pain relief)	15 (60 %)	15 (60 %)	14 (56 %)
6 to 8 (Good pain relief)	5 (20 %)	6 (24 %)	7 (28 %)
3 to 5 (Tolerable pain)	5 (20 %)	4 (16 %)	4 (16 %)
0 to 2 (Minimal pain relief)	0 (0 %)	0 (0 %)	0 (0 %)

6. PATIENT SATISFACTION AND LONG TERM SIDE EFFECTS:

LONG TERM RESULTS	NO. OF PATIENTS
Improved quality of life	20 (80 %)
Complete disappearance of pain	14 (56 %)
Painless labour	2 (08 %)
Urinary urgency	6 (24 %)
Vaginal dryness	5 (20 %)
Constipation	5 (20 %)
Recurrence of pain	0 (0 %)

V. DISCUSSION

In our study, the success rate of LUNA in terms of complete pain relief was 64 % whereas in the study of Shawki et all[1], the efficacy was round 76.4 %. In our study, urinary urgency was noted postoperatively in 24 % of the cases whereas Meigs et all[2] reported it in 32 % of the cases. In our study, constipation was noted in 20 % of the patients whereas Meigs et all[2] reported constipation in 32 % of the patients. In our study, 20 % of the patients complained of vaginal dryness whereas Jones and Rock[3] reported vaginal dryness in 17 % of their cases. In our study, none of the patients had recurrence of pain.

VI. CONCLUSION

LUNA is a simple procedure and effective procedure which can safely be used to treat with refractory CPP not relieved by medical therapy. LUNA will go a long way to improve the quality of lives of several women globally.

REFERENCES

[1]. Shawkiet all. The Efficacy of LUNA in the Treatment of Unexplained Chronic Pelvic Pain : A Randomised Control Trial. GynecolSurg (2011) 8:31–39 :DOI 10.1007/s10397-010-0612-1 Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3041907/

[2]. Meigs J V et all. Excision of the Superior Hypogastric Plexus for Primary Dysmenorrhoea. Surge Gynecol Obstet. 1939, 68 : 728.

[3]. Jones H W, Rock J A. Reparative and Constructive Surgery for the Female Genitourinary Tract. Baltimore and London : Williams and Wilkins ; 1983 : 136.