

## **Endoscopic Nipple-Sparing Mastectomy for Early Breast Cancer: A Case Series of a Minimally-invasive Technique**

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This study aimed to share the authors' preliminary experience with endoscopic nipple-sparing mastectomy in the Philippines. All medical records of patients who underwent endoscopic mastectomy done by the same surgeons in two institutions from March to October 2019 were collected and analyzed. Surgical margin, operating time, blood loss volume, and post-operative complications were noted. Three cases were recorded during the study period. The mean operative time was 341 minutes and the mean blood loss volume was < 20 mL. All cases had negative margins of resection on final histopathology. One patient developed ecchymosis on the axilla, while the other patients had unremarkable post-operative courses. Endoscopic nipple-sparing mastectomy is a potentially safe and feasible alternative in breast cancer management. Further evaluation of the procedure is recommended.

**Key words:** breast cancer, mastectomy, nipple-sparing, endoscopy

The incidence of breast cancer in the Philippines is among the highest in Asia and shows an increasing trend since the 1980s.<sup>1</sup> Modified radical mastectomy has been the standard treatment for breast cancer.<sup>2</sup> However, several advancements and techniques allowing breast conservation and sentinel node biopsy have been made over the last decade which showed comparable oncologic results, better cosmetic outcomes, and lesser morbidities compared to modified radical mastectomy.<sup>3-7</sup> A recent addition to the technique is nipple-sparing mastectomy with immediate breast reconstruction which has been shown to be feasible and oncologically safe.<sup>8-10</sup>

Another advancement in the field of surgery is the evolution towards minimally invasive procedures. The

initial application of minimally invasive techniques for breast surgery was for breast augmentation.<sup>11-13</sup> Eventually, endoscopic mastectomy, specifically endoscopic nipple-sparing mastectomy (ENSM), was used for dissection of malignant tumors because of its superior cosmetic result and patient satisfaction.<sup>14-16</sup>

This study aimed to describe the first cases and early outcomes of ENSM done in the Philippines. The authors will specifically describe the adequacy of histopathology margins, complications, operating time, and blood loss.

The objective was to describe the outcomes of endoscopic nipple-sparing mastectomy in the management of early breast cancer patients.

### **The Case Series**

#### *Case Materials*

This descriptive study was exempted for ethics review by the Research Ethics Committee. All medical records of patients who underwent ENSM with immediate breast reconstruction done by the same team of surgeons in Asian Hospital and Medical Center and Ospital ng Muntinlupa from March to October 2019 were collected and analyzed. Surgical margin, operating time, blood loss volume, and complications were noted. Follow-up was done after 1 week and 1 month. Post-operative images were collected to record the results of the implant insertion and progression of wound healing.