PREDICTIVE FACTORS FOR RESIDUAL DISEASE AFTER CONE BIOPSY IN CERVICAL CANCER: A MATTER OF MARGIN DISTANCE?

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INTRODUCTION

Several series have suggested the potential value of conization procedure in evaluations of pathologic variables, which could be used as selection criteria for less radical surgery^{15,16,18} and even lymphadenectomy omission¹⁷ in patients with early-stage cervical cancer. However, the accuracy of these procedures for predicting pathologic variables in radical hysterectomy specimens are not yet well established. Moreover the ideal margin distance in for less radical procedures are lacking.

Our aim was to evaluate predictive factors of residual invasive cervical cancer after cone biopsy.

METHODS

We reviewed a series of 230 patients with early stage cervical cancer submitted to radical hysterectomy from 2008 to 2018. Of these, 47 (20.4%) had diagnostic cone biopsy previous to radical hysterectomy and are subject of analysis.

Figure 1. A. Example of endocervical margin distance; B. Example of ectocervical margin distance. Example of endocervical margin distance

Figure 2. A. Example of radial margin distance; B. Surgical specimen after cold knife conization

RESULTS

Median age was 37 years and 26 (55.3%) were squamous cell carcinomas. Overall, the cone biopsy had positive margins in 25 (53.2%) cases - 22 (46.8%) radial, 17 (36.2%) endocervical and 15 (31.9%) ectocervical margins. The median tumor size and depth of invasion in cone biopsy was 5mm (0.1-30) and 4mm (0.35-24), respectively.

After radical hysterectomy, 20 (42.6%) cases had residual disease. The median residual tumor size and depth of invasion after radical hysterectomy was 11mm (0.1-42) and 5mm (1-20), respectively. Any positive margin in cone biopsy influenced the presence of residual disease ($p < 0.001$). Of the 25 patients with positive margins in cone biopsy, 17 (68%) had residual disease. Conversely, of the 22 patients with negative margins in cone biopsy, 3 (13.6%) still had residual disease in radical hysterectomy. In cone biopsy, tumor size, depth of invasion, radial and endocervical free margins distance were not related to residual disease. However, ectocervical free margin distance correlated to the presence of residual disease ($p < 0.001$). Moreover, no patient with free margin distance in cone biopsy of ≥ 1.5 mm had residual disease.

CONCLUSIONS

Presence of positive margins in conization related to a higher risk of residual disease in the hysterectomy specimen. Free margin distance in cone biopsy of < 1.5 mm may predict the presence of residual disease.

REFERENCES

- Baiocchi G, de Brot L, Faloppa CC, et al. Is parametrectomy always necessary in early-stage cervical cancer? *Gynecol Oncol*. 2017;**146**(1):16-19.
- Kim, M. K. *et al*. Feasibility of less radical surgery for superficially invasive carcinoma of the cervix. *Gynecol Oncol* **119**, 187–191.
- Kodama, J. *et al*. Factors associated with parametrial involvement in stage IB1 cervical cancer and identification of patients suitable for less radical surgery. *Gynecol Oncol* **122**, 491–494.
- Zhou, J. *et al*. Tailoring pelvic lymphadenectomy for patients with stage IA2, IB1, and IIA1 uterine cervical cancer. *J Cancer* **6**, 377–381, doi: 10.7150/jca.10968 (2015).
- Meirovitz, M., Sade, S., Dreier, J. & Shaco-Levy, R. Is radical hysterectomy necessary in early cervical cancer? *Gynecol Obstet Invest* **76**, 158–162.