A Carcinoma in Situ Arising in an Endocervical Polyp  
— A Case Report —

TAKASHI NISHIDA, TORU SUGIYAMA, TADASHI MIYOSHI,  
AKIO KATAOKA, SEISUKE KUMAGAI, SYUN-ICHIRO OTA,  
SHIGEAKI IWANAGA AND MICHIKI YAKUSHIJI

Department of Obstetrics and Gynecology, Kurume University School of  
Medicine, Kurume, 830 Japan

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Summary: A rare case of a carcinoma in situ arising from an endocervical polyp is described. The covering epithelium of the polyp transformed gradually into a carcinoma in situ via squamous metaplasia and dysplasia, spreading horizontally with glandular involvement, and colliding with the surface columnar cells. The lack of tumor tissue in the pedicle and adjacent cervical region confirms the case was a carcinoma in situ originating from the surface epithelium of the endocervical polyp.

Key words: carcinoma in situ — endocervical polyp — cytology — histology — diagnostic criteria

Introduction

Squamous cell carcinomas arising from cervical polyps are extremely rare. Aaro et al. (1963) observed only three cases of primary squamous cell carcinomas among 5015 resected polyps, which is an incidence of 0.06%. Although Hebrew (Anteby and Sadovsky, 1974) and Russian (Smirnov, 1974) papers have been published, none has appeared in the English literature for the last 30 years.

A case of carcinoma in situ originating from an endocervical polyp was encountered and is described in this report.

Case Report

A cervical polyp, 10 mm in diameter, was found in a 51 year-old Japanese woman who visited Kurume University Hospital because of a vaginal mucous discharge. Immediately after a colposcopic examination revealing a focal acetowhite epithelium on the tip of polyp, polypectomy was performed. The result of a cytological examination was interpreted as class III because of the presence of a few dysplastic cells.

On gross view of the histological specimen, the polyp was entirely covered by epithelial components, which consisted of microgland-bearing endocervical mucosa, stratified squamous metaplasia, neoplastic epithelium showing hypercellularity and cleft-forming columnar cells. The neoplastic component with glandular involvement was confined to the tip of the polyp. The underlying stroma included...
Fig. 1. A gross view of a histological specimen of a cervical polyp. The neoplastic epithelium with glandular involvement was confined to the tip.
Fig. 2. A higher power view of Fig. 1. The basal cell-like neoplastic cells began to proliferate at the edge of the metaplastic lesion (Fig. 2a), spread horizontally to occupy the full thickness of the epithelium (Fig. 2b), and collided again with the epithelium covering the polyp (Fig. 2c). (H.E. ×100)
dilated blood vessels and endocervical glands surrounded by loose connective tissue. The pedicle was free of the disease (Fig. 1).

Undifferentiated basal-type cells began to proliferate at the edge of the metaplastic lesion and occupied the full thickness of the epithelium (Fig. 2a). The neoplastic cells gradually increased in cellularity and atypicality, and spread horizontally to display a histology of carcinoma in situ with glandular involvement (Fig. 2b). Finally, the cells collided with the covering columnar epithelium of the polyp (Fig. 2c).

Although the results of colposcopic and cytological examinations following polypectomy were both negative, a subsequent conization was performed to confirm that the adjacent cervical region did not contain the disease.

Discussion

The definition of a carcinoma arising in a cervical polyp requires the absence of disease in the base and remaining cervical tissue (Ferenczy and Winkler, 1987). Since a focal carcinoma within a polyp that is accompanied by a similar lesion in the adjacent cervical regions should be regarded as a secondary rather than a primary focus (Ferenczy and Winkler, 1987), the diagnosis would be limited to only a few cases in the early stage. Indeed, all of the 3 cases previously described (Aaro et al. 1963) and the present case were uniformly preinvasive cancers, and these strict criteria might have contributed to the exceedingly rare incidence of the disease.

A caution was given by Aaro et al. (1963) concerning the false results of cytological examinations in cases with cervical polyps containing squamous cell carcinomas. They described that in 2 of 3 cases the cervical smear was negative for malignant cells. In the present case the cytological examination also failed to reveal cancer cells. One of the reasons for this phenomenon may be that an inadequate cell sampling was done to avoid cervical bleeding caused by scraping the surface of the polyp.

Because of symptoms including vaginal bleeding and leukorrhea, and because of rarely occurring malignant changes, Aaro et al. (1963) advocated prompt removal of all polyps and pathological examination even in cases with negative results from cytological examinations. We agree with their recommendation, and if a focal carcinoma is found within a polyp, an additional conization should be performed to confirm the diagnosis of carcinoma confined to a cervical polyp.

References