HISTOPATHOLOGICAL FEATURES OF CERVICAL POLYPS MANAGED IN A TERTIARY HOSPITAL IN SOKOTO, NIGERIA

Nnadi DC, Nwobodo EI, Airede LR

Department of Obstetrics and Gynaecology, Usmanu Dan fodiyo University Teaching Hospital, PMB 2370, Sokoto, Nigeria

Correspondence: Dr DC Nnadi

Department of Obstetrics and Gynaecology, Usmanu Dan fodiyo University Teaching Hospital, Sokoto

E-mail: dc.nnadi@gmail.com

ABSTRACT

Background: Cervical polyps are the most common benign lesion of the cervix. However, they are sometimes potential focus for the development of malignant disease.

Objectives: To determine the histological features of cervical polyps managed at Usmanu Danfodiyo University Hospital

Methods: Case records of all the patients that were managed for cervical polyps through surgery at Usmanu Danfodiyo University between January 1998 and December 2007 (10 years) were reviewed and data relating to age, parity, presenting symptoms and histological features were extracted. The results were analysed via SPSS version 15.0 (Chicago II USA).

Results: During the study period, 76 cases of cervical polyps were managed surgically and they accounted for 1.65% of all gynaecological surgery within the period. The modal age and parity of the patients were 30-34 years (32.9%) and para 5 or more (32.9%) respectively. Histology of surgical specimen revealed that 40.8% were leiomyoma while 38.2% were endocervical polyps. Malignant features were seen in 5.3% of the polyps

Conclusion: The relatively high prevalence of malignant features among cervical polyps in this study (5.3%) underscores the need for histological follow up of all cervical polyps managed via surgery in our environment.

Key words: cervical polyps, histopathological features, Sokoto

INTRODUCTION

Cervical polyps are small pedunculated, often sessile neoplasms of the cervix that mostly originate from the endo-cervix and a few may arise from the *portio*¹. They are the most common benign neoplastic growth of the cervix. Structurally they have a vascular connective tissue stroma and are covered by columnar, squamo-columnar or squamous epithelium^{1,2}.

They are commoner in multiparous women aged 20

years and above and are rare before menarche and occasional after the menopause^{1,2}. Cervical polyps are mostly benign but the histology of surgically removed polyps is recommended so as to rule out malignant change^{1,2,3,4}.

The aetiology of polyps is not fully known, however, most cervical polyps are thought to arise from focal endometrial hyperplasia^{1,2,3}. They may be hormone driven or may be as a result of chronic inflammation^{1,5}. Endo-cervical polyps are

flame-shaped, usually attached to the endo-cervical mucous by a narrow pedicle, while ecto-cervical polyps are pale, smooth lesions covered by stratified squamous epithelium. Endo-cervical polyps are most common, accounting for more than 60% of cervical polyps^{1,5,6}. They are symptomatic in only 40% of cases^{5,6}. Cervical polyps may present clinically with inter-menstrual and post-coital bleeding^{1,5}. Infected polyps can lead to abnormal vaginal discharge, *leukorrhea* and irregular

vaginal bleeding. Chronic irritation may result in cervicitis, endometritis, parametritis, salpingitis and infertility⁷.

Cervical polyps are potential focus of carcinoma. Malignant transformation to squamous cell carcinoma occurs in less than 1% of cases¹. Some forms of cervical cancer may present as polyps⁷.

Paucity of report in literature about this relatively common condition in North-western Nigeria informed this study.

MATERIAL AND METHODS

This is a descriptive study involving surgically removed cervical polyps assessed at the Histopathology Department of the Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto North-west Nigeria. The UDUTH, Sokoto, is a tertiary health institution located in the North-Western region of the country. The hospital has a residency programme in the sub-specialties like Obstetrics & Gynaecology, Surgery, Internal Medicine, Public health, Histopathology and General Medicine. The hospital cases were referred from the health institutions in Sokoto metropolis and also from neighbouring states like Zamfara, Kebbi, and Niger states. It also obtains referrals from Niger republic, a country located in the northern

frontiers of Nigeria.

The case notes of the patients who had surgery for cervical polyps over a 10-year period (from 1st January 1998 to 31st December 2007) were retrieved from the medical records Department. Relevant information such as bio-data and histological findings were extracted and recorded in a specially designed proforma. The data were analyzed via SPSS version 15.0 (Chicago IL, USA). Data were presented using relevant descriptive statistics such as percentages, means and standard deviations.

It is a routine practice in the Gynaecology Department to submit all surgically removed cervical polyps for histological examination to detect unsuspected malignancy. The study was approved by the Hospital's Committee on Ethics and Research.

RESULTS

During the ten-year study period, there were 4,606 gynaecological surgeries performed in the department. Out of these, 76 cases were related to cervical polyps. Thus removal of cervical polyps accounted for 1.65% of all gynaecological surgeries in the department. Table 1 shows the age distribution of women with cervical polyps. Most of the subjects were within the active reproductive age range of 20-49 years.

Table 1: Age distribution of the patients with cervical polyps

Age (years)	Number	Percentage
≤19	0	0
20-24	6	7.9
25-29	6	7.9
30-34	25	32.9
35-39	12	15.8
40-44	9	11.8
45-49	12	15.8
50-54	6	7.9
≥55	0	0
Total	76	100

The modal age range was 30-34 years, while the mean age was 33 ± 3.1 years.

Table 11 shows the frequency of cervical polyps in relation to parity of the subjects.

Table 11: Parity distribution of patients with cervical polyps

Parity	Number	Percentage
0	3	4.0
1	5	6.6
2	9	11.8
3	10	13.2
4	20	26.4
≥5	25	32.9
Not recorded	5	6.6
Total	76	100

Sixty four (76%) of the study subjects were multiparous women while 10.5% were nulliparous. The modal parity was para 5 or more and represented 32.9% of cases. The modal parity was para 5 or more.

Figure 1 shows the histological types of cervical polyps.

Figure 1: Histological types of cervical polyps

CIN 1: Cervical Intra-epithelial Neoplasia or mild dysplasia

Most lesions were leiomyomas 31/76 (40.8%) and endo-cervical polyps 29/76 (38.2%). There were 5 cases (6.6%) of low grade cervical intra-epithelial neoplasia (CIN 1) and 4 (5.3%) cases of squamous cell carcinoma seen on histology.

DISCUSSION

This study revealed that cervical polyps were common during the active reproductive age group of 20-45 years. This supports the view that polyps are hormone driven and may be due to excessive oestrogen stimulation of the cervical cells^{1, 2, 3}. The most common histological type of cervical polyp seen in this study is leiomyoma (40.8%). This is in contrast with the reports in most literatures where endo-cervical polyps are present in 60% of cervical polyps⁸.

The incidence of malignancy in cervical polyps varies in most published reports. Younis et al reviewed 1126 cases of cervical polyp in East Suffolk in the UK and found no malignant lesion⁹. In a study of 218 cases of cervical polyps in

Israel, two cases (0.9%) were found to be adenocarcinoma of the endometrium⁴, while in a similar study in Croatia, malignant lesions were present in 1.52% of the cases¹⁰. In this study, 5.3% of the cases were cervical malignancy. This can be explained by the high prevalence of cervical cancer in low-resource countries like ours where there are limited or absent screening facilities for early diagnosis of cervical cancer¹¹.

In conclusion, the relatively high prevalence of malignant lesion among cervical polyps in this study calls for vigilance and mandatory histopathological follow-up of all cases of cervical polyps.

REFERENCES

1. Kogan A, Ben-Shushan A, Pernoll ML. Benign disorders of uterine cervix. In: Decherney AH, Nathan L, Goodwin MT, Laufer N (eds). *Current Diagnosis and Treatment in OB/GYN* 10th Ed. McGraw/Hill, 2007: p. 624-38
2. Ozsran AA, Itil IM, Sagol S. Endometrial hyperplasia co-existing with cervical polyps. *Int. J. Gynaecol Obstet* 1999; 66: 185-8
3. Sternberg S. *Diagnostic Surgical Pathology* (3rd Ed); Lippincott Williams & Wilkins, 1999: 712-9
4. Neri A, Kaplan B, Rabnersin D, Ovadia J, Braslav D. Cervical Polyp in the menopause and the need for fractional dilatation and curettage. *Euro.J. Obstet Gynaecol Rep. Biol*, 1995; 62(1): 53-5
5. Golan A, Ber A, Wolman I, David MP. Cervical Polyp: evaluation of current treatment. *Gynaecol Obstet. Invest.* 1994; 37: 56-8
6. Togashi K. *Miscellaneous lesions of the uterus: MRI of the female pelvis*. Tokyo, Japan; Igaku-Shoin, 1993: 179-202
7. Arulkumaran S, Symonds IM, Fowlie A. *Oxford Handbook of Obstetrics & Gynaecology*. Oxford University Press (London) 2004: p. 677-684
8. Coeman D, van Belle Y, Vanderich G, De Muylder X, De Muylder E, Campo R: Hysteroscopic findings in patients with cervical polyps. *Am. J. Obstet. Gynaecol*, 1993; 169(6): 1563-5
9. Younis MTS, Iram S, Anwar B, Ewies AAA. Women with asymptomatic cervical polyps may not need to see a gynaecologist or have them removed: an observational retrospective study of 1126 cases. *Euro J Obstet Gynaecol and Reprod Bio* 2010; 150(2): 190-4
10. Todorov S: Polypoidosis of the uterine cervix. *Jugosl. Ginekolog Opstet* 1980; 19(3-4): 183-6
11. Airede LR, Nwobodo E, Malami SA, Tunau K: Carcinoma of the Cervix in Sokoto, Northern Nigeria. *J. Coll. Med*, 2005; 10(1): 48-52