

# Adenomyoma with Transitional Glandular Epithelium Coexisting with Schistosomiasis

Kabir Aliyu Suleiman, Ishak Lawal<sup>1</sup>, Nasir Abdullahi<sup>2</sup>, Jamiu Muhammad Bello<sup>3</sup>

Department of Pathology, University of Ilorin Teaching Hospital, Ilorin, Kwara State, Departments of <sup>1</sup>Obstetrics and Gynecology and <sup>2</sup>Pathology, Federal Medical Centre, Birnin Kebbi, Nigeria, <sup>3</sup>Department of Pathology, Faculty of Medicine and Surgery, University of Gitwe, Nyanza, Rwanda

## Abstract

Adenomyomas are uncommon tumor-like masses that differ from adenomyosis mainly in that they are circumscribed nodular masses. It may be located within the myometrium, or it may involve or originate in the endometrium and grow as a polyp. Endometrial polyps account for about 2% of the manifestation of adenomyomas. Adenomyoma may occur between ages 22 and 60 years. This case is a very rare variant of adenomyoma with transitional epithelium coexisting with schistosomiasis within leiomyomatous smooth muscle. We believe that this is the first reported case of adenomyoma with transitional glandular epithelium coexisting with schistosomiasis in Nigeria and there was no reported case or any work of such in all the English literatures searched, hence the need to report the case.

**Keywords:** Adenomyomas, schistosomiasis, transitional epithelium

## INTRODUCTION

Adenomyoma is characterized by the presence of a circumscribed, nodular aggregate of smooth muscles enclosing endometrial glands that are surrounded by endometrial stroma.<sup>[1-3]</sup> Adenomyomas are uncommon tumor-like masses that differ from adenomyosis mainly in that they are circumscribed nodular masses.<sup>[4]</sup>

It is located within the myometrium, may involve or originate in the endometrium, and may grow as a polyp. Endometrial polyps account for about 2% of the manifestation of adenomyomas. A rare variant of an adenomyomatous polyp, the atypical polypoid adenomyoma, has atypical hyperplastic glands that usually contain foci of squamous metaplasia.<sup>[4]</sup> Adenomyoma usually occurs between the ages of 22 and 60 years.<sup>[5]</sup>

Microscopically, they are composed of proliferative endometrial glands surrounded by endometrial stromal bordered by leiomyomatous smooth muscle.<sup>[1-3]</sup> Occasionally, there could be foci of tubal, mucinous endocervical, or squamous epithelium present.<sup>[5]</sup>

## CASE REPORT

This case is a very rare variant of adenomyoma with transitional epithelium coexisting with schistosomiasis within

leiomyomatous smooth muscle from a 29-year-old woman who presented with abnormal vagina bleeding of 3 months' duration.

Gross examination showed hysterectomy specimen weighing about 1800 g and measuring 18 cm × 18 cm × 16 cm in dimensions [Figure 1]. The cut surface revealed a huge submucous fibroid nodule measuring 16 cm × 14 cm × 8 cm with a characteristic whorled, grayish-white appearance, and gritty sensation while cutting [Figure 2].

Microscopically, there were proliferating sheets of mature smooth muscle fibers interlacing to form nodules. A few areas show transitional glandular epithelium, and there are numerous scattered ova of *Schistosoma* embedded within the smooth muscles [Figures 3 and 4].

## DISCUSSION

This case is unique because most adenomyomas have characteristic endometrial gland as a component with

**Address for correspondence:** Dr. Kabir Aliyu Suleiman,  
Department of Pathology, University of Ilorin Teaching Hospital, Ilorin,  
Kwara State, Nigeria.  
E-mail: [suleimankbr@gmail.com](mailto:suleimankbr@gmail.com)

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

**For reprints contact:** [reprints@medknow.com](mailto:reprints@medknow.com)

**How to cite this article:** Suleiman KA, Lawal I, Abdullahi N, Bello JM. Adenomyoma with transitional glandular epithelium coexisting with schistosomiasis. *Ann Trop Pathol* 2019;10:74-6.

### Access this article online

Quick Response Code:



Website:  
[www.atpjjournal.org](http://www.atpjjournal.org)

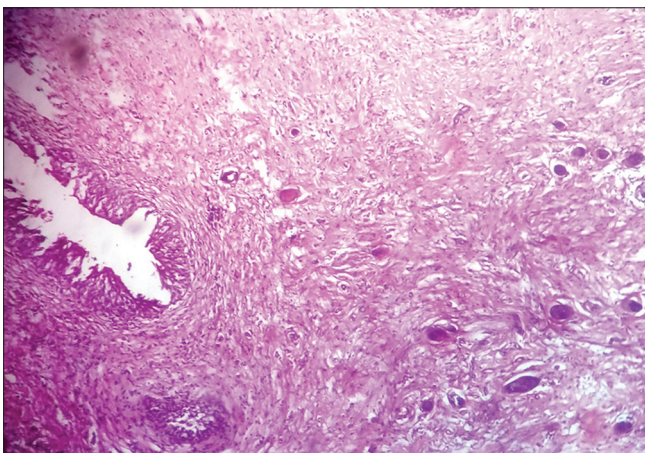
DOI:  
10.4103/atp.atp\_38\_18



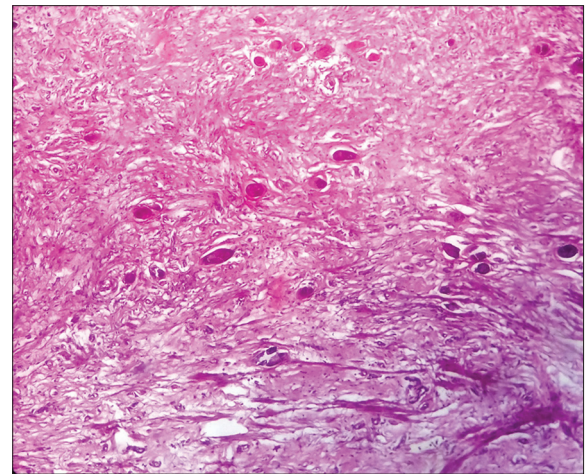
**Figure 1:** Gross appearance



**Figure 2:** Cut surface appearance



**Figure 3:** Low power micrograph showing transitional gland and oval of *Schistosoma* parasite



**Figure 4:** X 10 magnification showing numerous ova of *Schistosoma* parasite

occasional foci of tubal, mucinous endocervical, or squamous epithelium in some cases.<sup>[5]</sup> In this case under review, we report unusual glandular transitional epithelium. This particular feature is very rare in adenomyomas and no literature was found within our scope of search, reporting this feature apart from the occasional epithelial foci mentioned above.

The presence of *Schistosoma* ova in the fibroid nodule is not surprising because the patient resides in Argungu Emirate which is a schistosomiasis hyperendemic area in Kebbi State of Nigeria.<sup>[6]</sup> The ovum is known to stimulate granulomatous reaction; hence, it is not impossible that adenomyoma could have been stimulated by the presence of the ova, but such reactions are not known to produce transitional epithelium.

Though we believe that this unusual finding is most likely as a result of metaplastic changes in the endometrial glands induced by the ova of *Schistosoma* parasite found within the fibroid nodules, there are however other possibilities that could be advanced. For example, direct transposition of the uroepithelium during the surgery could have occurred if there was injury to the bladder at the time of the surgery, but there was no such injury at surgery. It is also not impossible that the *Schistosoma* parasite could have

migrated the epithelium with it. Migrated epithelial cells have the ability to attach and derive nutrition from the new site.

This case is completely different from benign atypical polypoid adenomyoma which is a biphasic tumor consisting of complex endometrial intraepithelial neoplasm and mesenchymal stromal components.<sup>[4,5]</sup> The epithelial component in benign atypical polypoid adenomyoma varies from cribriform, solid irregular, to papillary arrangement and is separated by fascicles of bland muscle and fibrous stromal, and they never contain transitional epithelium as a component.<sup>[5]</sup> However, squamous metaplasia is the usual metaplastic changes observed in benign atypical polypoid adenomyomas with no reported case of urothelial metaplasia.

We believe that this is the first reported case of adenomyoma with transitional glandular epithelium coexisting with schistosomiasis in Nigeria and there was no reported case or any work of such in all the English literature searched, hence the need to report the case.

#### **Declaration of patient consent**

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have

given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

### Financial support and sponsorship

Nil.

### Conflicts of interest

There are no conflicts of interest.

### REFERENCES

1. Gilks CB, Clement PB, Hart WR, Young RH. Uterine adenomyomas excluding atypical polypoid adenomyomas and adenomyomas of endocervical type: A clinicopathologic study of 30 cases of an underemphasized lesion that may cause diagnostic problems with brief consideration of adenomyomas of other female genital tract sites. *Int J Gynecol Pathol* 2000;19:195-205.
2. Jung WY, Shin BK, Kim I. Uterine adenomyoma with uterus-like features: A report of two cases. *Int J Surg Pathol* 2002;10:163-6.
3. Tahlan A, Nanda A, Mohan H. Uterine adenomyoma: A clinicopathologic review of 26 cases and a review of the literature. *Int J Gynecol Pathol* 2006;25:361-5.
4. Robert JK, Lora HE, Brigitte MR, editors. *Blaustein's Pathology of the Female Genital Tract*. 6<sup>th</sup> ed. New York: Springer; 2011. p. 512-4.
5. Vijay S. Atypical Polypoid Adenomyoma. *Pathologyoutline.com*. Available from: <http://www.pathologyoutline.com/topic/uterusapa.html>. [Last accessed on 2017 Oct 19].
6. Umar S, Shinkafi SH, Hudu SA, Neela V, Suresh K, Nordin SA, *et al.* Prevalence and molecular characterisation of *Schistosoma haematobium* among primary school children in Kebbi state, Nigeria *Ann Parasitol* 2017;63:133-9.