

## **Understanding Condyloma, Anal Intraepithelial Neoplasia (AIN) and Anal Cancer**

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Condyloma are anal warts and are caused by the Human Papilloma Virus. This is a sexually transmitted disease that may be treated surgically by destroying the warts, or chemically with silver nitrate, or with Aldara (imiquimod) cream. Patients with this condition are prone to recurrence and need careful surveillance and follow-up, usually on a monthly basis after surgery.

Patients with condyloma and human papilloma virus infection may develop anal intraepithelial neoplasia. This is not cancer, but rather it is a risk for squamous cell cancer which is treated with radiation and chemotherapy when diagnosed on biopsy

There are two approaches to AIN. The first is careful regular observation and biopsy of any suspicious lesion. This is the approach I follow because the natural history of anal neoplasia, and its risk and timing of progression to cancer is not known. Therefore at this time I would recommend an examination under anesthesia, and biopsy of any other suspicious areas with subsequent follow up every three months.

An alternative approach practiced by some is to extirpate all potentially neoplastic tissue. This is done using high resolution anoscopy in which the perianal and anal canal is painted with a chemical that demonstrates the areas that are purportedly abnormal. These lesions are then destroyed surgically. Subsequent follow up is still needed. There is no data at this time to show that this decreases the progression to or risk from cancer. I do not recommend this therapy at this time.

If and when there is no visible evidence of condyloma, there may be persistent infection with HPV; however, at this time there is no way to eliminate this. Furthermore, the risk that HPV may pose for cancer is unclear at this time.

This situation is professionally frustrating because the best therapy I can offer at this time for condyloma, HPV infection, and AIN is regular surveillance, excision and destruction of condyloma, and biopsy of any suspicious lesions.

Cancer may develop in the setting of condyloma and AIN. This cancer, called squamous cell carcinoma is diagnosed by biopsy. It is treated primarily by radiation and chemotherapy with a very high cure rate of over 70%. Surgery is reserved for treatment failures.