

# **Vaginal Cancer Subtypes**

Vaginal cancer commonly occurs within the upper third of the posterior wall of the vagina. It can be categorized into three main subtypes. The most common subtype is squamous cell carcinoma, which usually originates from cervical squamous cell carcinoma. Clear cell adenocarcinoma is associated with diethylstilbestrol exposure in utero. Sarcoma botryoides is a malignant rhabdomyosarcoma that presents as a "bunch of grapes" protruding from the vagina. These cells are spindle shaped and desmin positive on histology.



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## **Squamous Cell Carcinoma**

## Squamous Cell Carcinoma

Square-mouse Car-gnome

Squamous cell carcinoma is the most common subtype of vaginal carcinomas. As primary SCC is rare, vaginal SCC usually occurs secondary to cervical SCC.

## **Most Common Subtype**

#1 Foam-finger

Squamous cell carcinoma is the most common subtype of vaginal carcinomas.

## Associated with Cervical Squamous Cell Carcinoma

Cervix-certificate with Square-mouse Car-gnome

Squamous cell carcinoma of the vagina usually arises from cervical squamous cell carcinoma. Cervical cancer is a common gynecologic malignancy that has fortunately become much less fatal since screening methods (e.g. Pap smear).

## Clear Cell Adenocarcinoma

#### Clear Cell Adenocarcinoma

Clear Cell and Add (+) Car-gnome

Clear cell adenocarcinoma primarily impacts females of mothers exposed to DES (diethylstilbestrol) in utero.

## Diethylstilbestrol (DES) Exposure

Pregnancy with DES

Clear cell adenocarcinoma primarily impacts females of mothers exposed to DES (diethylstilbestrol) in utero. DES was thought to prevent complications of pregnancy by boosting estrogenic activity during the mid-1900s until there was substantial evidence for the link with clear cell adenocarcinoma of the vagina and subsequent infertility.

#### Sarcoma Botryoides



#### Sarcoma Botryoides

#### Shark-comb with Botryoides-flowers

Sarcoma botryoides is a rare vaginal carcinoma subtype but is highly malignant with a peak incidence in childhood (< 4 years old).

## Malignant Rhabdomyosarcoma

## Malignant-man with Rabbi-shark-comb

Sarcoma botryoides is a highly malignant embryonal rhabdomyosarcoma. Rhabdomyoblasts can be found anywhere in the body where smooth muscle tissue surrounds an epithelial lumen. They are present in vaginal epithelium. There is a peak incidence of this vaginal cancer in childhood, commonly in those less than 4 years old.

## "Bunch of Grapes" in Vagina

## Vagina-violet with Grapes

Sarcoma botryoides is associated with clear, gross polypoid masses that resemble a bundle of grapes, which protrude from the vagina.

## Spindle-shaped Cells

#### Spindle Cell

Tumor cells of sarcoma botryoides are characterized by a spindle-shaped pleomorphic appearance on microscopy.

#### **Desmin Positive**

## **Demon Positive**

Sarcoma botryoides is desmin positive on immunohistochemical staining. Desmin is a muscle-specific protein that comprises intermediate filaments. Desmin IHC is used to identify neoplastic cells arising from muscle.