

Biopsy of Endometriosis May Have More Risk Than Benefit But Biopsy is Useful for Other Pathology

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Abstract

Objective: This collection of illustrations clarifies conflicts in the debate on the need for biopsy of endometriosis

Design: Illustrations were collected to illustrate problems of recognition and biopsy.

Materials and Methods: The illustrations were collected from the author's previous.

Results: When dark, scarred, puckered, pigmented or mixed, color endometriosis is seen at first laparoscopy, excision can be therapeutic but biopsy is not needed for intentional observation, coagulation or medical suppression. Although biopsy may have little risk, it may have even less benefit. This is particularly true in asymptomatic women undergoing sterilization procedures and when lesions are near bowel, ureter, bladder and diaphragm. Risk may also increase when the lesions extend past loose connective tissue into the deeper layers. These deep layers can be organs and may have bleeding that is harder to control than bleeding in loose connective tissue. Biopsy can have more risk than benefit in those women.

The Canadian Collaborative Group on Endometriosis decided to use "typical bluish or black lesions" to define endometriosis. This has a historical basis and is supported by high confirmation rates.

But "black" and "dark" lesions are not the same as "dark scarred," "puckered pigmented" or "mixed color" lesions. This appears to be one reason that The Canadian Collaborative Group on Endometriosis decided to use "typical bluish or black lesions" to define endometriosis. This has a historical basis and is supported by high confirmation rates. "Black" and "dark" lesions can be other pathology other than endometriosis. As a corollary, dark scarred lesions have also been associated with or coincidental to fibroids, ectopics, dermoids, mucinous cystadenomas, endometrioid cancer, pelvic inflammatory disease, positive chlamydia titers and other findings. Neither a finding of endometriosis nor a finding of other disease excludes coexistent pathology.

Clear and opaque lesions can be the most concerning. Psammoma bodies are generally opaque vesicles and endosalpingiosis are generally clear. Their gross appearance can be confused with endometriosis. These are associated with positive chlamydia trachomatis IgG titers, Fitz-Hugh adhesions and low malignant potential tumor.

Red lesions can be endometriosis, hypervascular endosalpingiosis, inflammation associated with psammoma bodies, non-specific hypervascularity and hemangiomas.

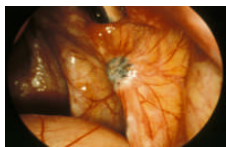
Conclusions: "Dark scarred," "puckered pigmented" and "mixed color" lesions are generally endometriosis. Other characteristic, identifiable lesions included white scar, red polyps, clear vesicles, adhesions, yellow brown patches, deep nodules and peritoneal pockets. However, these other appearances are also seen with other pathology. Although biopsy may have little risk, it may have even less benefit when lesions are dark and scarred or puckered and pigmented.

Histology may have more risk than benefit in patients with scarred dark or puckered pigmented lesions when a physician plans to observe or to medically treat a patient. Histology and requiring a specific diagnosis or description by the pathologist appear needed in other cases to clarify the findings and possibly to rule out cancer.

Objectives

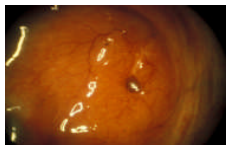
These illustrations are chosen to illustrate difficulties in visual recognition of endometriosis and other pathology.

Results



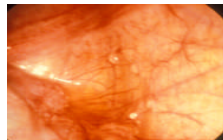
This is endometriosis.

Note that this puckered dark lesion has fibromuscular scar that encases pools of old blood, glands and stroma.¹



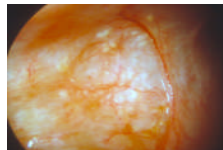
This is not endometriosis.

This vesicular lesion has no glands or stroma. It is associated with psammoma bodies and a positive chlamydia trachomatis IgG antibody.¹



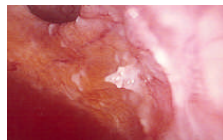
This is endometriosis.

This clear vesicular endometriosis has dilated glands with peripheral stroma and hemosiderin.¹



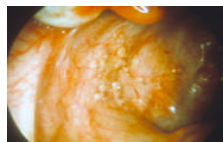
This is not endometriosis.

Psammoma bodies and endosalpingiosis are associated with positive chlamydia trachomatis IgG antibody.²



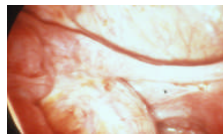
This is not endometriosis.

This vesicular lesion is low malignant potential tumor. Close observation is needed to recognize the cluster of vesicles.



This is not endometriosis.

This cluster of vesicular lesions is low malignant potential tumor.² This can be confused with psammoma bodies and with endosalpingiosis as it was by one observer in this case.



This is endometriosis and it is also cancer.

The red and white scar in this case includes endometriosis and grade 1 adenocarcinoma.³ Biopsy is the only way I find in the literature to make this diagnosis.

Discussion

When dark, scarred; puckered, pigmented or mixed, color endometriosis is seen at first laparoscopy, excision can be therapeutic. But biopsy may not be needed for diagnosis, intentional observation, coagulation or medical suppression. This is consistent with the decision by The Canadian Collaborative Group on Endometriosis to use "typical bluish or black lesions" to define endometriosis.⁴ This has a historical basis and is supported by high confirmation rates.⁵⁻⁹ But the same appearance at second surgeries has been foreign body in a small number of patients. Although biopsy may have little risk, it may have even less benefit.¹

But "dark scarred," "puckered pigmented" or "mixed color" lesions are not the same as "black" and "dark" lesions. "Black" and "dark" lesions can be other pathology other than endometriosis. As a corollary, endometriosis has also been associated with or coincidental to fibroids, ectopics, dermoids, mucinous cystadenomas, endometrioid cancer, pelvic inflammatory disease, positive chlamydia titers and other findings. Foreign body reaction and granulomas have been found at subsequent surgery after incomplete treatment of endometriosis.¹⁰ Neither a finding of endometriosis nor a finding of other disease excludes coexistent pathology.

Clear and opaque lesions, white nodules and grayish to tan nodules can be the most concerning. Psammoma bodies are generally opaque vesicles and endosalpingiosis are generally clear. Their gross appearance can be confused with endometriosis. These are associated with positive chlamydia trachomatis IgG titers, Fitz-Hugh adhesions and low malignant potential tumor.^{2, 10-14} White nodules have been metastatic breast cancer and grayish to tan nodules have been endometrioid adenocarcinoma.^{3, 15, 16}

Conclusions

"Dark scarred," "puckered pigmented" and "mixed color" lesions are generally endometriosis. Other characteristic, identifiable lesions included white scar, red polyps, clear vesicles, adhesions, yellow brown patches, deep nodules and peritoneal pockets. However, these other appearances are also seen with other pathology. Although biopsy may have little risk, it may have even less benefit when lesions are dark and scarred or puckered and pigmented. Biopsy and histology appear more useful for diagnosis of other pathology including cancer.

References

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