November 2016 Featured Articles, Volume 223

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Article 1: Breast, General Surgery
Radial scar at percutaneous breast biopsy that does not require surgery. Leong RY, Kohli MK, Zeizafoun N, et al. J Am Coll Surg 2016;223:712–716

Article 2: General Surgery
Management of uncomplicated acute appendicitis as day case surgery: feasibility and a critical analysis of exclusion criteria and treatment failure. Grelpois G, Sabbagh C, Cosse C, et al. J Am Coll Surg 2016;223:694–703

Article 3: Infections; General Surgery
Impact of hair removal on surgical site infection rates: a prospective randomized noninferiority trial. Kowalski TJ, Kothari SN, Mathiason MA, Borgert AJ. J Am Coll Surg 2016;223:704–711

Objectives: After reading the featured articles published in this issue of the *Journal of the American College of Surgeons* (JACS) participants in this journal-based CME activity should be able to demonstrate increased understanding of the material specific to the article featured and be able to apply relevant information to clinical practice.

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ARTICLE 1

(Please consider how the content of this article may be applied to your practice.)

Radial scar at percutaneous breast biopsy that does not require surgery

Leong RY, Kohli MK, Zeizafoun N, et al
J Am Coll Surg 2016;223:712–716

Learning Objectives: After studying this article, surgeons should understand the difference between mammographic and pathologic radial scar of the breast and their corresponding likelihoods of finding malignancy at surgical excision.

Question 1

Concerning radial scars on mammography compared with radial scars at percutaneous breast core biopsy:

a. Mammographic radial scars have lower likelihood of malignancy at surgical excision.
b. Pathologic radial scars are most frequently found at percutaneous breast biopsy for masses on ultrasound.
c. Pathologic radial scars are frequently found at surgical excision of mammographic radial scars.
d. The majority of pathologic radial scars are associated with a proliferative breast lesion.
e. Mammographic radial scars do not require biopsy.

Critique: Mammographic radial scars have a higher likelihood of associated malignancy than pathologic radial scars. For this reason mammographic radial scars require biopsy, although the majority of mammographic

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radial scars are in fact due to pathologic radial scars. Pathologic radial scars are most frequently found at percutaneous core biopsy for calcifications on mammography and in this study, 25% were associated with a proliferative breast lesion.

Question 2

In this study the pathologic finding at percutaneous needle biopsy most frequently associated with malignancy was:

a. Papilloma
b. Atypical ductal hyperplasia
c. Papilloma with atypical ductal hyperplasia
d. Sclerosing adenosis
e. Atypical lobular hyperplasia

Critique: Surgical upgrades to malignancy in this study were found with atypical ductal hyperplasia and lobular neoplasia. Of the 21 cases with atypical ductal hyperplasia, 4 were found to have ductal carcinoma in situ at surgical excision and 1 had invasive ductal cancer; 1 invasive lobular carcinoma was found in the 16 patients with lobular neoplasia. No cancers were found at surgical excision for papilloma. Sclerosing adenosis at percutaneous breast biopsy is not associated with increased likelihood of malignancy at surgical excision.

Question 3

In this study, the majority of radial scars found at percutaneous needle biopsy of the breast were for:

a. Architectural distortion on mammography
b. Enhancement on breast MRI
c. Masses on ultrasound
d. Calcifications on mammography
e. Masses with calcifications on mammography

Critique: In this study of pathologic radial scars at percutaneous breast needle biopsy, 9% of the biopsies were for enhancement on MRI and 4% were for mammographic asymmetry or architectural distortion. Almost one-third of the percutaneous biopsies were ultrasound-guided biopsies for masses; the majority were stereotactic biopsies for mammographic calcifications.

Question 4

Which of the following patient scenarios is most appropriate to follow without surgical excision after finding radial scar at percutaneous needle biopsy of the breast:

a. Papilloma associated with the radial scar
b. Residual calcifications on mammography after stereotactic needle biopsy
c. Any patient can be followed without surgical excision
d. Lobular neoplasia with the radial scar
e. Absence of any associated proliferative lesion

Critique: This study had too few patients (n = 17) with papilloma associated with the radial scar at needle biopsy to safely conclude that these patients can be followed. The same can be said about the 16 patients with lobular neoplasia and, in addition, 1 of these patients was found to have invasive lobular carcinoma at surgical excision, indicating that these patients should probably not be followed. Residual calcifications after a stereotactic breast needle biopsy may indicate inadequate sampling. Because malignancy was found at surgical excision in 5 of the 21 patients with atypical ductal hyperplasia associated with radial scar, these patients cannot be followed without surgical excision. Surgical excision is unnecessary when radial scar is found at percutaneous needle biopsy without an associated proliferative lesion. Surgical excision is still indicated when radial scar is associated with atypical ductal hyperplasia or lobular neoplasia.

ARTICLE 2

(Please consider how the content of this article may be applied to your practice.)

Management of uncomplicated acute appendicitis as day case surgery: feasibility and a critical analysis of exclusion criteria and treatment failure

Grelpois G, Sabbagh C, Cosse C, et al
J Am Coll Surg 2016;223:694–703

Learning Objectives: The reader should learn to evaluate the feasibility of day case (same-day) surgery for uncomplicated acute appendicitis.

Question 1

In the overall, intent-to-treat population of patients with acute appendicitis, the rate of success of day case surgery is:

a. 5%
b. 11%
c. 31%
d. 61%
e. 80%

Critique: In this study, we found that almost one-third of patients with acute appendicitis were