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Q/ Is colonoscopy indicated if only one of 3 stool samples is positive for occult blood?

EVIDENCE-BASED ANSWER

A/ **Yes.** Any occult blood on a fecal occult blood test (FOBT) should be investigated further because colorectal cancer mortality decreases when positive FOBT screenings are evaluated (strength of recommendation: **A,** systematic review, evidence-based guidelines).

Follow-up of positive screening results lowers colorectal cancer mortality

No studies directly compare the need for colonoscopy when various numbers of stool samples are positive for occult blood on an FOBT. However, a Cochrane review of 4 randomized controlled trials (RCTs) with more than 300,000 patients examined the effectiveness of the FOBT for colorectal cancer screening.[1] Each study varied in its follow-up approach to a positive FOBT.

Two RCTs offered screening with FOBT or standard care (no screening) and immediately followed up any positive results with a colonoscopy. The screened group had lower colorectal cancer mortality (N=46,551; risk ratio [RR]=0.75; 95% confidence interval [CI], 0.62-0.91) than the unscreened group (N=61,933; RR=0.84; 95% CI, 0.73-0.96).

Another trial screened with FOBT or standard care and offered colonoscopy if 5 or more samples were positive on initial testing or one or more were positive on repeat testing. The screened group showed reduced colorectal cancer mortality (N=152,850; RR=0.87; 95% CI, 0.78-0.97).

The final trial examined screening with FOBT compared with standard care and inconsistently offered repeat FOBT or sigmoidoscopy with double-contrast barium enema if any samples were positive on initial testing, which resulted in decreased colorectal cancer mortality for the screened group (N=68,308; RR=0.84; 95% CI, 0.71-0.99).

Evidence-based guidelines recommend follow-up colonoscopy

Evidence-based guidelines from the United States Preventive Services Task Force, the European Commission, and the Canadian Task Force on Preventive Health Care state that FOBT should be used for colorectal cancer screening and that any positive screening test should be followed up with colonoscopy to further evaluate for neoplasm.[2-4]

An evidence- and expert opinion-based guideline from the American Cancer Society, the US Multi-Society Task Force on Colorectal Cancer, and the American College of Radiology clarifies the issue further by emphasizing that *any* positive FOBT necessitates a colonoscopy and stating that repeat FOBT or other test is inappropriate as follow-up.[5] JFP

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Q/ Do trigger point injections effectively treat fibromyalgia?

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EVIDENCE-BASED ANSWER

A/ **Possibly.** Trigger point injections appear effective in reducing pain and increasing pressure thresholds in patients with fibromyalgia and myofascial trigger points (strength of recommendation [SOR]: **B**, small randomized controlled trials [RCTs]).

Consensus guidelines suggest that trigger point injections may have a role in the treatment of fibromyalgia (SOR: **C**, expert opinion).

Active injections produce sustained improvement

A 2011 double-blind RCT randomized 68 female patients with both fibromyalgia and myofascial trigger points to either active trigger point injections with 1 mL 0.5% bupivacaine or placebo-like needle penetration with no medication to an area near the trigger point.[1] Patients were evaluated for both local and generalized fibromyalgia symptoms at 4 and 8 days (trial period) and after 30 days (follow-up). Injections occurred on Days 1 and 4, with an option of additional injections on Days 8 and 11.

Compared to baseline (7 days before the injection), patients receiving active trigger point injections had decreased myofascial pain episodes 7 days after the injection (5.6 vs 0.97 episodes; $P<.001$), decreased pain intensity (62 vs 19/100 mm Visual Analog Scale score; $P<.001$), and increased pressure threshold at the trigger point (1.5 vs 2.9 kg/cm^2; $P<.0001$), whereas the control group showed no differences.

During Days 1 to 8, patients receiving active trigger point injections required less acetaminophen (0.2 vs 2.7 tablets/d; $P<.0001$). At Day 8, no patients in the active trigger point injection group requested additional injections, whereas all the patients in the control group requested an injection ($P<.0001$).

At Day 8, patients also had significantly decreased intensity of fibromyalgia pain, fewer tender points, and higher tender point pressure thresholds; none of these differences were statistically significant in the placebo injection group (data presented graphically). The improvements persisted at 30 days of follow-up (data presented graphically).

Small study shows improvement with injections after 2 weeks

An uncontrolled prospective before-after study in 1996 evaluated the effectiveness of 0.5% lidocaine trigger point injections in 9 patients with myofascial trigger points plus fibromyalgia compared with 9 patients with myofascial trigger points alone.[2]

Immediately after injection, patients with fibromyalgia had a nonsignificant worsening in pain intensity (pain scale 8.1 to 8.4/10; $P>.1$), but there was a significant improvement at 2 weeks (5.9; $P<.01$). The pressure threshold also decreased initially (1.7 to 1.4 kg/cm^2; $P>.1$), but significantly increased at 2 weeks (2.4 kg/cm^2; $P<.01$). In comparison, patients without fibromyalgia showed immediate improvement in all domains, which persisted at 2 weeks ($P<.01$).

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