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TOOLS FOR PRACTICE

PEER PATIENTS EXPERIENCE EVIDENCE RESEARCH

An ASA a day keeps the Afib at bay?

CLINICAL QUESTION

How do ASA and direct oral anticoagulants compare in atrial fibrillation and bleeding risk?

BOTTOM LINE

For patients of any age with atrial fibrillation, apixaban is superior to ASA for the prevention of strokes or systemic embolisms (1.6% apixaban versus 3.7% ASA) with no increased risk of intra-cranial hemorrhage or major bleeding. Other direct oral anticoagulants have not been studied in this context.

EVIDENCE

- Results statistically different unless indicated.
- In atrial fibrillation,[1] only one Randomized Controlled Trial (RCT) comparing direct oral anticoagulants (apixaban) to ASA. 5599 participants with atrial fibrillation unsuitable for warfarin (example: labile INR), age~70, CHADS~2. After ~1.1 years:
    - Stroke/systemic embolism: 1.6% (apixaban) versus 3.7% (ASA).
        - <65 years old: 0.7% versus 2% (ASA), Number Needed to Treat (NNT)=77.
        - >75 years old: 2% versus 6.1% (ASA), NNT=25.
        - >85 years old: 1% versus 7.5% (ASA). NNT=16.[2]
    - Major bleeding: 1.4% versus 1.2% (ASA), not statistically different.

        - No significant differences in any age subgroup (including >85) between apixaban and ASA, but risk increases with age, example (apixaban): 0.7% <65 years-old versus 4.7% >85 years-old.[1,2]
    - Intracranial hemorrhage or gastrointestinal bleeding, no differences (0.4% all groups).
- Bleeding risks, various populations (example: embolic strokes of undetermined source). One systematic review of direct oral anticoagulants versus ASA. After ~17.2 months:[3]
    - Apixaban (4 RCTS, 10,978 patients):
        - Symptomatic intracranial hemorrhage (0.5% versus 0.8% ASA), not different.
        - Major hemorrhage (2.8% versus 2.4% ASA), not different.
    - Dabigatran (2 RCTs, 5,695 patients):
        - Symptomatic intracranial hemorrhage (1.2% versus 1.2% ASA), not different.
        - Major hemorrhage (2.7% versus 2.3% ASA), not different.
    - Rivaroxaban (3 RCTs, 28,821 patients):
        - Symptomatic intracranial hemorrhage (0.4% versus 0.2% ASA), Number Needed to Harm (NNH)=500.
        - Major hemorrhage (2.2% versus 1.4% ASA), NNH=125.
- Limitations: Few RCTs in frail patients, different populations, limited information regarding types of bleeding events.

CONTEXT

- 2020 Canadian Cardiovascular Society Guidelines:[4]
    - Oral anti-coagulation: >65 years-old/history of stroke, hypertension, heart failure, diabetes.
    - Otherwise: No antithrombotic unless recommended for secondary prevention coronary/peripheral artery disease.
- Apixaban, edoxaban superior to warfarin for prevention stroke/systemic embolism, less major bleeding events.[5,6]

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