Egophony

Definition:
- A change in timbre (E to A,) but not pitch or volume
  - Timbre is the "pronunciation" of a sound
  - Accumulation of fluid or fibrosis in lung tissue enhances the transmission of high-frequency sounds while filtering out lower-frequency sounds leading to the high-pitched nasal/bleating sound characteristic of egophony

Indications:
- To assess for the presence of pneumonia, pleural effusion, or idiopathic pulmonary fibrosis

Equipment:
- Stethoscope

Technique:
1. Instruct the patient to say the word "bee" every time you touch them with your stethoscope
2. Auscultate over the patient's chest with the diaphragm of a stethoscope
3. If you find a place over the patient's chest that sounds like an "a" (as in "ate"), remove your earpieces to be sure the patient is saying "e"
4. Return your stethoscope to your ears to verify you are hearing "a"

Results:
- Positive:
  - Egophony is heard indicating some consolidation of lung tissue
- Negative:
  - No egophony is heard indicating normal lung tissue is present
- False-positive:
  - Occurs in the presence of fibrotic lung parenchyma

Pearls:
- The "a" sound heard in egophony has a nasal bleating quality, like the bleating of a goat
- Egophony displays the extent of consolidation but not the cause
- Use of the bell instead of the diaphragm during auscultation may hide the sounds of egophony

References:
1. Bickley LS et al. Bates' Guide to Physical Examination and History Taking. 11th ed. Philadelphia, PA: Lippincott Williams & Wilkins. 2013;314.
2. Orient, JM. Sapira's Art and Science of Bedside Diagnosis. 4th ed. Philadelphia, PA: Lippincott Williams & Wilkins. 2010;299-301.
3. Sapira JD. About Egophony. Chest. 1995;108(3):865-7.