Normal variations in thyroid function may be linked to atrial fibrillation risk

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A study by researchers at Vanderbilt University Medical Center has strengthened the link between thyroid function and atrial fibrillation (AF), an irregular heart rhythm that increases the risk of stroke and other heart-related complications.

The phenome-wide association study scanned the medical records of more than 37,000 people for an association between genetically determined variation in thyroid stimulating hormone levels (a measure of thyroid function) and AF risk.

Previous observational studies have found that subclinical hyperthyroidism, an overactive thyroid which does not meet the clinical threshold for diagnosis or treatment, nevertheless can increase the risk of AF. But whether to treat subclinical hypo- or hyperthyroidism to reduce AF risk remains a matter of debate in the medical community.

The current study, published today in the journal *JAMA Cardiology*, found that genetically determined variations in thyroid function, even those which fall within a physiologically accepted "normal" range, still can increase the risk for AF.

The decision to treat subclinical thyroid disease should account for this new evidence, as "antithyroid medications to treat hyperthyroidism may reduce AF risk (while) thyroid hormone replacement for hypothyroidism (low thyroid function) may increase AF risk," the researchers concluded.

Provided by Vanderbilt University Medical Center