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# Propafenone

Updated: September 3, 2021.

# OVERVIEW

## Introduction

Propafenone is an oral antiarrhythmic agent that has been in wide use for several decades. Long term propafenone therapy is associated with a low rate of serum aminotransferase elevations and therapy rarely can cause a self-limited, acute cholestatic liver injury.

## Background

Propafenone (proe" pa fee' none) is an analogue of the local anesthetic procaine and has electrophysiological effects that resemble quinidine (antiarrhythmic Class IC). Propafenone appears to act by blocking open sodium channels and outward potassium channels. As a consequence, it decreases cardiac automaticity, increases refractory periods and slows conduction. Propafenone was approved for use in the United States in 1989, and current approved indications include prevention of recurrence of symptomatic atrial fibrillation after cardioversion in patients without structural heart disease, and for suppression of life threatening ventricular arrhythmias. Propafenone is available as tablets of 150, 225 and 300 mg and as extended release capsules of 225, 325 and 425 mg generically and under the brand name Rythmol. The usual maintenance dose in adults of standard release forms is 150 to 300 mg every 8 hours and 225 to 425 mg of the sustained release forms every 12 hours. The most common side effects include dizziness, palpitations, chest pain, dyspnea, fatigue, headache, anxiety, gastrointestinal upset, change in taste and blurred vision.

## Hepatotoxicity

In clinical trials, propafenone was associated with a low rate of serum aminotransferase and alkaline phosphatase elevations. Since its approval and more widescale use, propafenone has been linked to rare instances of clinically apparent liver injury, at least a dozen cases of which have been reported in the literature. Patients usually present with symptoms of jaundice and pruritus 2 to 8 weeks after starting propafenone, and the pattern of serum enzyme elevations are typically mixed (Case 1) or cholestatic (Case 2). Immunoallergic and autoimmune features are uncommon. While the jaundice can be prolonged, patients typically recover in 1 to 3 months and there have been no instances of acute liver failure, chronic hepatitis or vanishing bile duct syndrome attributed to its use.

Likelihood score: B (rare but likely cause of clinically apparent liver injury).

## Mechanism of Injury

The mechanism by which propafenone causes liver injury is unknown. Propafenone is extensively metabolized in the liver by the cytochrome P450 system, predominantly CYP 2D6 and is sensitive to drug-drug interactions and hypermetabolizer status.

## Outcome and Management

The severity of hepatic injury due to propafenone ranges from mild and transient serum enzyme elevations to acute cholestatic hepatitis. Propafenone has not been linked to acute liver failure, chronic liver injury or vanishing bile duct syndrome. Recurrence upon reexposure is common and should be avoided. There is no evidence for cross sensitivity to the hepatic injury of propafenone with other antiarrhythmic agents.

Drug Class: Antiarrhythmic Agents

# CASE REPORTS

## Case 1. Cholestatic hepatitis due to propafenone.(1)

A 73 year old woman developed itching two weeks after starting propafenone (450 mg daily) for atrial fibrillation. She denied jaundice, abdominal pain, rash and fever. She had no history of liver disease, alcohol abuse or risk factors for viral hepatitis. She had known atherosclerosis, coronary artery disease, cerebrovascular disease, transient ischemic attacks, chronic obstructive pulmonary disease, diabetes and dyslipidemia. Her medications taken chronically included aspirin (100 mg daily), isosorbide mononitrate (20 mg twice daily), NPH insulin (8 units daily), glibenclamide (5 mg three times daily) and metformin (850 mg daily). Laboratory testing showed elevations in serum enzymes, but normal bilirubin (Table). Tests for hepatitis A, B and C were negative and ultrasound of the liver showed no evidence for biliary obstruction. Once propafenone was stopped and replaced by verapamil (120 mg daily), serum enzymes fell into the normal range. When she redeveloped atrial fibrillation 6 months later, propafenone was restarted, but her serum enzymes rapidly became abnormal, and it was again stopped. Five weeks later she redeveloped itching and was again found to have elevations in serum enzymes. On questioning, she reported restarting propafenone on her own.

### Key Points

| | |
|---|---|
| Medication: | Propafenone (450 mg daily) |
| Pattern: | Mixed (R=2.1) |
| Severity: | 1+ (enzyme elevations without jaundice) |
| Latency: | 2 weeks |
| Recovery: | 4 weeks |
| Other medications: | Aspirin, glibenclamide, metformin, isosorbide mononitrate, insulin |

### Laboratory Values

| Time After Starting | Time After Stopping | ALT (U/L) | Alk P (U/L) | Bilirubin (mg/dL) | Other |
|---|---|---|---|---|---|
| Pre | | 10 | 58 | | |
| 0 | | 15 | 53 | | |
| 2 weeks | 0 | 125 | 148 | 0.5 | Itching |
| 4 weeks | 0 | 100 | 268 | 0.6 | Propafenone stopped |

*Table continued from previous page.*

| Time After Starting | Time After Stopping | ALT (U/L) | Alk P (U/L) | Bilirubin (mg/dL) | Other |
|---|---|---|---|---|---|
| 7 weeks | 3 weeks | 34 | 148 | | |
| 9 weeks | 5 days | 14 | 72 | | |
| Propafenone restarted due to recurrence of atrial fibrillation | | | | | |
| 0 | | 18 | 65 | | |
| 2 weeks | 0 | 145 | 240 | | Propafenone stopped |
| 4 weeks | 2 weeks | 24 | 125 | | |
| 7 weeks | 5 weeks | 14 | 45 | | |
| Propafenone restarted by the patient | | | | | |
| 1 weeks | 0 | 150 | 275 | | Itching, drug stopped |
| 3 weeks | 2 weeks | 16 | 70 | | |
| **Normal Values** | | **<42** | **<115** | **<1.2** | |

## Comment

This patient developed a mixed pattern of serum enzyme elevations without jaundice on three occasions while taking propafenone. On each occasion, she was symptomatic with itching, suggesting a cholestatic liver injury. At least a dozen cases of cholestatic hepatitis have been reported associated with propafenone use. The latency to onset has ranged from 1 to 6 weeks and the pattern of enzyme elevation is usually cholestatic or mixed. Most patients have had mild jaundice and all cases have recovered with stopping the medication. As this case demonstrates, recurrence on reexposure is typical, the recurrences having a similar latency and severity. This phenomenon is different from cases of drug induced immunoallergic hepatitis that usually recur within days of reexposure with a more severe and abrupt onset and course.

[Translation courtesy of Dr. Yaron Rotman.]

# Case 2. Cholestatic hepatitis due to propafenone.(2)

A 62 year old woman was found to have abnormal liver tests one month after starting propafenone (450 mg daily) for atrial fibrillation. At that point, she had no symptoms of liver disease and specifically denied abdominal pain, dark urine, rash and fever. She had no history of liver disease, alcohol abuse or risk factors for viral hepatitis. She had a history of breast cancer treated with mastectomy 30 years previously. She also had adult-onset diabetes for which she took insulin. The liver test abnormalities were thought to be due to malignancy and because the arrhythmias were not adequately controlled, propafenone was continued and the dose was increased to 600 mg daily. Over the next few weeks she developed nausea and liver tests worsened (Table). Tests for hepatitis A, B and C were negative as were autoantibodies. Ultrasound and computerized tomography of the abdomen showed no evidence of biliary obstruction, gall stones or malignancy. Propafenone was discontinued and she was treated with sotalol (150 mg daily). Over the next two months, liver tests returned to normal.

## Key Points

| | |
|---|---|
| Medication: | Propafenone (450 to 600 mg daily) |
| Pattern: | Cholestatic (R=1.2) |
| Severity: | 1+ (enzyme elevations and symptoms without jaundice) |

*Table continued from previous page.*

| | |
|---|---|
| Latency: | 4 weeks |
| Recovery: | 7 weeks |
| Other medications: | Insulin |

## Laboratory Values

| Time After Starting | Time After Stopping | ALT (U/L) | Alk P (U/L) | Bilirubin (mg/dL) | Other |
|---|---|---|---|---|---|
| Pre | | 18 | 182 | 0.6 | Atrial fibrillation |
| 0 | | 12 | 185 | 0.7 | Propafenone started |
| 4 weeks | 0 | 202 | 1489 | 1.2 | Dose increase |
| 5 weeks | 0 | 160 | 2156 | 1.3 | Nausea |
| Propafenone stopped | | | | | |
| 8 weeks | 4 weeks | 41 | 992 | 0.5 | |
| 12 weeks | 7 weeks | 25 | 235 | 0.5 | |
| **Normal Values** | | **<31** | **<240** | **<1.2** | |

## Comment

This patient developed a mild cholestatic hepatitis within a month of starting propafenone. The abnormal liver tests were initially attributed to possible malignancy, but after lack of evidence of cancer on imaging, propafenone was considered the likely cause and it was discontinued, whereupon symptoms rapidly improved and liver tests returned to normal within the next two months. Typical of propafenone is the latency to onset of 3-6 weeks, mild cholestatic hepatitis and prompt improvement on stopping.

# PRODUCT INFORMATION

**REPRESENTATIVE TRADE NAMES**

Propafenone – Generic, Rythmol®

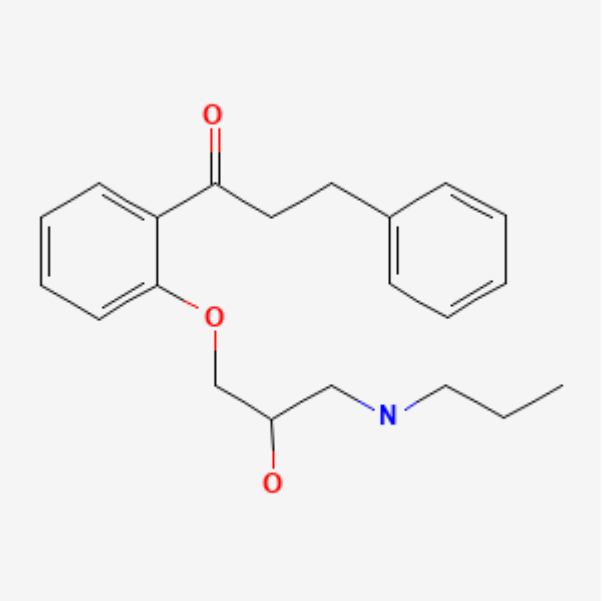
**DRUG CLASS**

Antiarrhythmic Agents

COMPLETE LABELING

Product labeling at DailyMed, National Library of Medicine, NIH

## CHEMICAL FORMULA AND STRUCTURE

| DRUG | CAS REGISTRY NUMBER | MOLECULAR FORMULA | STRUCTURE |
|---|---|---|---|
| Propafenone | 54063-53-5 | C21-H27-N-O3 |  |



## CITED REFERENCES

1. Arinzon Z, Fridman R. Harefuah. 2001;140:1010–3, 1119. [Liver function test impairment induced by propafenone in a 73 year old woman]. Hebrew. PubMed PMID: 11759372.
2. La Brocca A. Ann Ital Med Int. 2002;17:261–4. [Hepatic toxicity of propafenone: a case description]. Italian. PubMed PMID: 12532566.

## ANNOTATED BIBLIOGRAPHY

References updated: 07 September 2021

Zimmerman HJ. Antiarrhythmics. Drugs used in cardiovascular disease. In, Zimmerman HJ. Hepatotoxicity: the adverse effects of drugs and other chemicals on the liver. 2nd ed. Philadelphia: Lippincott, 1999, pp. 642-4.

*(Expert review of hepatotoxicity of antiarrhythmics published in 1999; mentions that propafenone is a rare cause of cholestatic jaundice).*

De Marzio DH, Navarro VJ. Hepatotoxicity of cardiovascular and antidiabetic drugs. In, Kaplowitz N, DeLeve LD, eds. Drug-induced liver disease. 3rd ed. Amsterdam: Elsevier, 2013, pp. 524.

*(Review of hepatotoxicity of cardiovascular agents mentions that propafenone can cause a mixed pattern of injury usually after 2-6 weeks of therapy).*

Knollmann BC, Roden DM. Antiarrhythmic drugs. In, Brunton LL, Hilal-Dandan R, Knollman BC, eds. Goodman & Gilman's the pharmacological basis of therapeutics. 13th ed. New York: McGraw-Hill, 2018, pp. 547-72.

*(Textbook of pharmacology and therapeutics).*

Schuff-Werner P, Kaiser D. Dtsch Med Wochenschr. 1980;105:137–8. [Cholestatic hepatitis following antiarrhythmic propafenone therapy].

*(Two cases; 35 year old woman developed malaise 4 weeks after starting propafenone [bilirubin 1.1 mg/dL, ALT 289 U/L, Alk P 826 U/L], resolving within 4 weeks of stopping; 60 year old woman developed malaise within days of starting propafenone [ALT 115 U/L, Alk P slightly elevated], resolving within 2 weeks).*

Schuff-Werner P, Kaiser D, Lüders CJ, Berg PA. Z Gastroenterol. 1981;19:673–9. [Propafenon-induced cholestatic liver injury—a further example for allergic drug hepatitis (author's transl)]. German. PubMed PMID: 6117993.

*(Further analysis of previously reported cases, one had positive lymphocyte stimulation to propafenone).*

Konz KH, Berg PA, Seipel L. Dtsch Med Wochenschr. 1984;109:1525–7. [Cholestasis after antiarrhythmic therapy with propafenone]. German. PubMed PMID: 6206993.

*(84 year old man developed nausea 6 days after starting propafenone followed by jaundice and pruritus [bilirubin 10.8 mg/dL, ALT 57 U/L, Alk P 515 U/L], with recovery in two months; patient then gave history of jaundice during previous course of propafenone arising after 33 days with cholestatic course).*

Libersa C, Caron J, Pladys A, Beuscart R, Kacet S, Wajman A, Connell C, et al. Propafenone versus disopyramide: a double-blind randomized crossover trial in patients presenting chronic ventricular arrhythmias. Clin Cardiol. 1987;10:405–10. PubMed PMID: 2440632.

*(Ten patients with ventricular arrhythmias were treated with disopyramide vs propafenone vs placebo in a crossover study for 6 days each; no change in chemical parameters).*

Jonason T, Ringqvist I, Bandh S, Nilsson G, Nilsson H, Lidell C, Bjerle P, et al. Propafenone versus disopyramide for treatment of chronic symptomatic ventricular arrhythmias. A multicenter study. Acta Med Scand. 1988;223:515–23. PubMed PMID: 3291557.

*(38 patients with symptomatic ventricular arrhythmias were treated with either propafenone or disopyramide for 28 days; propafenone had fewer side effects; no mention of liver injury or ALT elevations).*

Funck-Brentano C, Kroemer HK, Lee JT, Roden DM. Propafenone. N Engl J Med. 1990;322:518–25. PubMed PMID: 2405273.

*(Review of propafenone; approved for severe ventricular arrhythmias; common side effects are dizziness, taste disturbances, blurred vision and nausea. Rare cases of cholestatic hepatitis have been reported).*

Propafenone for cardiac arrhythmias. Med Lett Drugs Ther. 1990;32:37–8. PubMed PMID: 2182990.

*(Short summary of efficacy and safety of propafenone published soon after its approval in the US; adverse effects include dizziness, change in taste, blurred vision, abdominal discomfort, anorexia, and nausea; can worsen heart failure; no mention of hepatic adverse effects).*

Spinler SA, Elder CA, Kindwall KE. Propafenone-induced liver injury. Ann Pharmacother. 1992;26:926–8. PubMed PMID: 1354511.

*(71 year old woman developed serum enzyme elevations without symptoms 1 month after starting propafenone [bilirubin 1.1 mg/dL, ALT 80 U/L, Alk P 512 U/L], not resolving on lowering dose, but resolving within 2 months of stopping).*

Mondardini A, Pasquino P, Bernardi P, Aluffi E, Tartaglino B, Mazzucco G, Bonino F, et al. Propafenone-induced liver injury: report of a case and review of the literature. Gastroenterology. 1993;104:1524–6. PubMed PMID: 8482464.

*(66 year old man took propafenone for 2 weeks, presenting ten days later with jaundice and pruritus [bilirubin 6.2 mg/dL, ALT 127 U/L, Alk P 553 U/L], resolving on stopping and reappearing within 2 weeks of restarting).*

Elizalde JI, Batallier R, Bruix J, Rodes J. Gastroenterol Hepatol. 1994;17:382–3. [Hepatotixicity of propafenone].

*(62 year old man developed fatigue at 3 and jaundice at 6 weeks after starting propafenone [bilirubin 6.8 mg/dL, ALT 501 U/L, Alk P 1512 U/L], resolving 2 months after stopping).*

Crijns HJ, Gosselink AT, Lie KI. Propafenone versus disopyramide for maintenance of sinus rhythm after electrical cardioversion of chronic atrial fibrillation: a randomized, double-blind study. PRODIS Study Group. Cardiovasc Drugs Ther. 1996;10:145–52. PubMed PMID: 8842506.

*(Controlled trial of propafenone vs disopyramide in 56 patients after cardioversion of atrial fibrillation; similar efficacy, but side effects were more frequent with disopyramide; no mention of hepatic side effects or ALT elevations).*

Aliot E, Denjoy I. Comparison of the safety and efficacy of flecainide versus propafenone in hospital out-patients with symptomatic paroxysmal atrial fibrillation/ flutter. The Flecainide AF French Study Group. Am J Cardiol. 1996;77:66A–71A.

*(In a controlled trial in 96 patients with episodic atrial fibrillation, oral flecainide and propafenone were equally effective, but side effects were common, largely dizziness, headache and gastrointestinal disturbances; no mention of ALT elevations or hepatotoxicity).*

Chimienti M, Cullen MT Jr, Casadei G. Safety of long-term flecainide and propafenone in the management of patients with symptomatic paroxysmal atrial fibrillation: report from the Flecainide and Propafenone Italian Study Investigators. Am J Cardiol. 1996;77:60A–75A.

*(In a controlled trial in 200 patients with episodic atrial fibrillation, oral flecainide and propafenone had similar efficacy and tolerance; no mention of ALT elevations or hepatotoxicity).*

Roden DM. Antiarrhythmic drugs: from mechanisms to clinical practice. Heart. 2000;84:339–46. PubMed PMID: 10956304.

*(Overview of antiarrhythmic drugs which are separated in four classes based upon molecular target: I being sodium channel blockers; II beta blockers; III potassium channel blockers; and, IV calcium channel blockers; some agents having multiple targets).*

Arinzon Z, Fridman R. Harefuah. 2001;140:1010–3, 1119. [Liver function test impairment induced by propafenone in a 73 year old woman]. Hebrew. PubMed PMID: 11759372.

*(73 year old woman developed itching 2 weeks after starting propafenone [bilirubin 0.5 mg/dL, ALT 125 U/L, Alk P 148 U/L], values becoming normal after it was stopped and both symptoms and liver enzyme abnormalities returning on restarting two more times [bilirubin always normal and peak Alk P 268 U/L: Case 1).*

Gandolfi A, Rota E, Zanghieri G, Tolomelli S, Bagnulo A, Mengoli M. Recenti Prog Med. 2001;92:197–9. [Acute cholestatic hepatitis caused by propafenone. Report of a case and review of the literature]. Italian. PubMed PMID: 11320851.

*(Case of self-limited acute cholestatic hepatitis arising 3 weeks after starting propafenone: abstract only).*

La Brocca A. Ann Ital Med Int. 2002;17:261–4. [Hepatic toxicity of propafenone: a case description]. Italian. PubMed PMID: 12532566.

*(62 year old woman developed nausea and abnormal liver tests two months after starting propafenone for atrial fibrillation [bilirubin 1.4 mg/dL, ALT 202 U/L, Alk P 1489 U/L], resolving within two months of stopping: Case 2).*

Grieco A, Forgione A, Giorgi A, Miele L, Gasbarrini G. Propafenone-related cholestatic hepatitis in an elderly patient. Ital Heart J. 2002;3:431–4. PubMed PMID: 12189974.

*(84 year old man developed pruritus and jaundice 3 weeks after starting propafenone [bilirubin 10.7 mg/dL, ALT 116 U/L, Alk P 1655 U/L], resolving over next 8 weeks).*

McNamara RL, Tamariz LJ, Segal JB, Bass EB. Management of atrial fibrillation: review of the evidence for the role of pharmacologic therapy, electrical cardioversion, and echocardiography. Ann Intern Med. 2003;139:1018–33. PubMed PMID: 14678922.

*(Systematic review of literature on efficacy and safety of drugs for atrial fibrillation; propafenone has been shown to be effective in conversion of atrial fibrillation to normal sinus rhythm and its subsequent maintenance; hepatic side effects are not discussed).*

Cocozzella D, Curciarello J, Corallini O, Olivera A, Alburquerque MM, Fraquelli E, Zamagna L, et al. Propafenone hepatotoxicity: report of two new cases. Dig Dis Sci. 2003;48:354–7. PubMed PMID: 12643615.

*(2 cases; 67 year old woman developed jaundice and pruritus 6 weeks after starting propafenone [bilirubin 3.6 mg/dL, ALT 22 U/L, Alk P 770 U/L], resolving in 2 weeks; 69 year old woman developed jaundice and pruritus 7 months after starting propafenone [bilirubin 7.4 mg/dL, ALT 100 U/L, Alk P 1020 U/L], resolving in several months).*

Marrtín EP, Cervantes JL, Yangüela J. Rev Esp Enferm Dig. 2004;96:734–5. [Propafenone hepatotoxicity]. Spanish. PubMed PMID: 15537382.

*(76 year old woman developed fatigue 1 month after starting propafenone [bilirubin 1.6 mg/dL, ALT 208 U/L, Alk P 1257 U/L], resolving almost completely within 3 weeks of stopping).*

Drugs for cardiac arrhythmias. Treat Guidel Med Lett. 2007;5:51–8. PubMed PMID: 17505408.

*(Concise review of drugs for arrhythmias; propafenone is effective in preventing paroxysmal supraventricular tachycardia and atrial fibrillation in "otherwise healthy hearts"; mentions hepatotoxicity as an adverse event).*

Chalasani N, Fontana RJ, Bonkovsky HL, Watkins PB, Davern T, Serrano J, Yang H, Rochon J. Drug Induced Liver Injury Network (DILIN). Causes, clinical features, and outcomes from a prospective study of drug-induced liver injury in the United States. Gastroenterology. 2008;135:1924–34. PubMed PMID: 18955056.

*(Among 300 cases of drug induced liver disease in the US collected from 2004 to 2008, 2 cases were attributed to amiodarone and 1 to profafenone, but none to other antiarrhythmic agents).*

Treatment of atrial fibrillation. Treat Guidel Med Lett. 2010;8(97):65–70. PubMed PMID: 20733547.

*(Concise review of efficacy and safety of drugs for atrial fibrillation; propafenone is effective in maintaining sinus rhythm after cardioversion and is generally reserved for patients with structurally normal hearts; side effects can include bradycardia, dizziness, blurred vision, nervousness and headache; no mention of hepatotoxicity or ALT elevations).*

Camm J. Antiarrhythmic drugs for the maintenance of sinus rhythm: risks and benefits. Int J Cardiol. 2012;155:362–71. PubMed PMID: 21708411.

*(Review of the safety and efficacy of antiarrhythmic drugs used to maintain normal sinus rhythm; no discussion of hepatotoxicity).*

Björnsson ES, Bergmann OM, Björnsson HK, Kvaran RB, Olafsson S. Incidence, presentation and outcomes in patients with drug-induced liver injury in the general population of Iceland. Gastroenterology. 2013;144:1419–25. PubMed PMID: 23419359.

*(In a population based study of drug induced liver injury from Iceland, 96 cases were identified over a 2 year period, but none were attributed to propafenone).*

Hernández N, Bessone F, Sánchez A, di Pace M, Brahm J, Zapata R, A, Chirino R, et al. Profile of idiosyncratic drug induced liver injury in Latin America: an analysis of published reports. Ann Hepatol. 2014;13:231–9. PubMed PMID: 24552865.

*(Among 176 reports of drug induced liver injury from Latin America published between 1996 and 2012, none were attributed to propafenone).*

Chalasani N, Bonkovsky HL, Fontana R, Lee W, Stolz A, Talwalkar J, Reddy KR, et al. United States Drug Induced Liver Injury Network. Features and outcomes of 899 patients with drug-induced liver injury: The DILIN Prospective Study. Gastroenterology. 2015;148:1340–52. PubMed PMID: 25754159.

*(Among 899 cases of drug induced liver injury enrolled in a US prospective study between 2004 and 2013, 7 were attributed to antiarrhythmics including 5 to amiodarone and 2 to dronedarone, but none were linked to propafenone).*

Younan LB, Barada KA, Faraj WG, Tawil AN, Jabbour MN, Khoury MY, El-Majzoub NM, et al. Propafenone hepatotoxicity: report of a new case and review of the literature. Saudi J Gastroenterol. 2013;19(5):235–7. PubMed PMID: 24045598.

*(67 year old woman developed jaundice 4 weeks after starting propafenone [300 mg daily] for atrial fibrillation [bilirubin 9.7 mg/dL, ALT 213 U/L, Alk P 384 U/L], with slow resolution upon stopping).*

Drugs for atrial fibrillation. Med Lett Drugs Ther. 2019;61(1580):137–144. PubMed PMID: 31599871.

*(Concise summary of the mechanisms of action, clinical efficacy, safety and costs of drugs used to treat atrial fibrillation mentions that propafenone is a second line agent, whose use should be restricted to patients without structural heart disease and only in combination with a beta blocker; mentions that it has been linked to cases of hepatotoxicity).*

D'Angelo RN, Rahman M, Khanna R, Yeh RW, Goldstein L, Yadalam S, Kalsekar I, et al. Limited duration of antiarrhythmic drug use for newly diagnosed atrial fibrillation in a nationwide population under age 65. J Cardiovasc Electrophysiol. 2021;32:1529–1537. PubMed PMID: 33760297.

*(In a national sample of patients, ages 20 to 64 years, who were started on an antiarrhythmic agent within 90 days of diagnosis of atrial fibrillation, the most frequently used agents were flecainide [27%] , amiodarone [23%], dronedarone [14%], sotalol [16%], and propafenone [14%], and an average of 72% discontinued the therapy within 2 years of starting, most commonly because of ablation therapy).*