UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the Month of: August 2024 (Report No. 3)

Commission File Number: 001-40753

ICECURE MEDICAL LTD. (Translation of registrant's name into English)

7 Ha'Eshel St., PO Box 3163
<u>Caesarea, 3079504 Israel</u>
(Address of principal executive office)

(Address of principal executive office)
Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:
⊠ Form 20-F ☐ Form 40-F
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On August 14, 2024, IceCure Medical Ltd. (the "Company") issued a press release titled "IceCure's ProSense® Destroyed 100% of Breast Cancer Tumors in Independent Study of Patients Who Chose Cryoablation Instead of Surgery," a copy of which is furnished as Exhibit 99.1 with this Report of Foreign Private Issuer on Form 6 K.
The first, second, fourth and fifth paragraphs and the section titled "Forward Looking Statements" in the press release furnished herewith are incorporated by reference into the Company's Registration Statements on Form F-3 (Registration Nos. 333-258660 and 333-267272) and Form S-8 (Registration Nos. 333-270982, 333-264578 and 333-262620), filed with the Securities and Exchange Commission, to be a part thereof from the date on which this Report of Foreign Private Issuer on Form 6-K is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.
Exhibit No.
Press release dated August 14, 2024, titled "IceCure's ProSense® Destroyed 100% of Breast Cancer Tumors in Independent Study of Patients Who Che Cryoablation Instead of Surgery."
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<u>SIGNATURES</u>
Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereund duly authorized.
ICECURE MEDICAL LTD.
Date: August 14, 2024 By: /s/ Eyal Shamir
Name: Eyal Shamir
Title: Chief Executive Officer

IceCure's ProSense® Destroyed 100% of Breast Cancer Tumors in Independent Study of Patients Who Chose Cryoablation Instead of Surgery

- After a median follow-up of 16 months, the complete ablation rate in Luminal A and B breast cancer tumors ≤ 25mm was 100%
- Study concluded that most non-surgical patients with early-stage breast cancer accepted cryoablation when the treatment was offered and that cryoablation is a safe, effective alternative to surgery and well-tolerated as an out-patient procedure

CAESAREA, Israel, August 14, 2024 – IceCure Medical Ltd. (Nasdaq: ICCM) ("IceCure", "IceCure Medical" or the "Company"), developer of minimally-invasive cryoablation technology that destroys tumors by freezing as an alternative to surgical tumor removal, today announced the publication of an independent study titled "Acceptance and results of cryoablation for the treatment of early breast cancer in non-surgical patients" in the *British Journal of Radiology*, a publication of the British Institute of Radiology. The single-site study, led by Lucia L. Garna Lopez, PhD, was conducted by researchers in the radiology, oncology, and surgery departments at Hospital Lucus Augusti in Lugo, Spain.

The aim of the study was to evaluate the acceptance of percutaneous cryoablation treatment by patients with early-stage breast cancer who choose not to have surgery. Of the 45 patients offered cryoablation with ProSense®, 43 patients, or 95.6% accepted. 36 of these, representing 39 malignant tumors (median size 24mm), proceeded to undergo cryoablation.

"This study is a good case in point that when women who elect not to have surgery, or are not eligible for surgery, are given the option, they overwhelmingly choose cryoablation to treat their breast cancer," stated IceCure CEO Eyal Shamir. "In addition to providing excellent data on the safety and efficacy of ProSense® in patients who chose not undergo surgery, the study's authors also point to the correlation between a larger aging population, increased risk of breast cancer with age, and the fact that most patients who elect not to have surgery or are not eligible are elderly patients. These factors, we believe, point to increasing demand for ProSense® when it is presented as an option."

The median age of patients treated with cryoablation was 87, with a range of 60-96. After a median follow-up of 16 months, the complete ablation rate in luminal breast cancer with tumors \leq 25mm was 100%. No major complications were seen.

The study investigators concluded that most non-surgical patients with early-stage breast cancer accepted cryoablation when the treatment was offered and that cryoablation is safe, effective, and well-tolerated as an outpatient procedure. The published article went on to state that outcomes suggest cryoablation could be an alternative to surgery for the management of breast cancer in this group of patients and pointed to financial, physical, and cosmetic benefits.

About ProSense®

The ProSense® Cryoablation System provides a minimally invasive treatment option to destroy tumors by freezing them. The system uniquely harnesses the power of liquid nitrogen to create large lethal zones for maximum efficacy in tumor destruction in benign and cancerous lesions, including breast, kidney, lung, and liver.

ProSense® enhances patient and provider value by accelerating recovery, reducing pain, surgical risks, and complications. With its easy, transportable design and liquid nitrogen utilization, ProSense® opens that door to fast and convenient office-based procedure for breast tumors.

About IceCure Medical

IceCure Medical (Nasdaq: ICCM) develops and markets advanced liquid-nitrogen-based cryoablation therapy systems for the treatment of tumors (benign and cancerous) by freezing, with the primary focus areas being breast, kidney, bone and lung cancer. Its minimally invasive technology is a safe and effective alternative to hospital surgical tumor removal that is easily performed in a relatively short procedure. The Company's flagship ProSense® system is marketed and sold worldwide for the indications cleared and approved to date including in the U.S., Europe and China.

Forward Looking Statements

This press release contains forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995 and other Federal securities laws. Words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and similar expressions or variations of such words are intended to identify forward-looking statements. For example, IceCure is using forward looking statements in this press release when it discusses the belief that the correlation between an aging population, increased risk of breast cancer with age, and the fact that most patients who elect not to have surgery or are not eligible are elderly patients point to increasing demand for ProSense® when it is presented as an option. Historical results of scientific research and clinical and preclinical trials do not guarantee that the conclusions of future research or trials will suggest identical or even similar conclusions. Important factors that could cause actual results, developments and business decisions to differ materially from those anticipated in these forward-looking statements include, among others: the Company's planned level of revenues and capital expenditures; the Company's available cash and its ability to obtain additional funding; the Company's ability to market and sell its products; legal and regulatory developments in the United States and other countries; the Company's ability to maintain its relationships with suppliers, distributors and other partners; the Company's ability to maintain or protect the validity of its patents and other intellectual property; the Company's ability to expose and educate medical professionals about its products; political, economic and military instability in the Middle East, specifically in Israel; as well as those factors set forth in the Risk Factors section of the Company's Annual Report on Form 20-F for the year ended December 31, 2023 filed with the SEC on April 3, 2024, and other documents filed with or furnished to the

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