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: July 2024 (Report No. 2)

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)

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 July 9, 2024, IceCure Medical Ltd. (the "Company") issued a press release titled "European Study Provides More Evidence Supporting IceCure's ProSense® is Safe & Effective Cryoablation Treatment for Metastatic and Recurrent Breast Cancer", a copy of which is furnished as Exhibit 99.1 with this Report of Foreign Private Issuer on Form 6-K.

The first and fourth 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a part thereof from the date on which this Report of Foreign Private Issuer on Form 6-K is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.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.

99.1

Press release dated July 9, 2024, titled "European Study Provides More Evidence Supporting IceCure's ProSense® is Safe & Effective Cryoablation Treatment for Metastatic and Recurrent Breast Cancer."

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SIGNATURES

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, thereunto duly authorized.

ICECURE MEDICAL LTD.

Date: July 9, 2024

By: /s/ Eyal Shamir

Name Eyal Shamir Title: Chief Executive Officer European Study Provides More Evidence Supporting IceCure's ProSense® is Safe & Effective Cryoablation Treatment for Metastatic and Recurrent Breast Cancer

- Independent, third-party data published in highly influential peer-reviewed journal, Cancers, concluded cryoablation with ProSense® is a safe, local treatment for
 breast cancer with low complication rate, high complete ablation rate and satisfactory overall survival (OS), progression free survival (PFS) and local tumor control
- 8.9% recurrence rate in population of 45 patients who had previously received various therapies before cryoablation including surgery, radiation therapy, or chemotherapy with tumor sizes of up to 4 centimeters in diameter. Of those patients, 11 had recurrent tumors and 21 had metastatic disease
- The higher-risk population in this European study contrasts with the early-stage breast cancer patient subjects in the U.S. ICE3 study

CAESAREA, Israel, July 9, 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 evaluating its flagship cryoablation system ProSense® titled: "CT-Guided Percutaneous Cryoablation of Breast Cancer: A Single-Center Experience" in *Cancers*, a leading peer-reviewed oncology journal. The study, led by Principal Investigator Professor Thomas J. Vogl, was conducted at the Institute of Radiology and Nuclear Medicine, University Hospital Frankfurt, at Goethe University, Germany.

Professor Vogl commented, "Liquid Nitrogen-based cryoablation was found to be a safe local treatment for breast cancer, with a low complication rate—in fact, none were observed in the study. We experienced a very high complete ablation rate of 100%. Overall survival, progression free survival and local tumor control were all good, especially given the very heterogenous patient population. The fact that this is a minimally invasive procedure that can be performed on an outpatient basis with excellent cosmetic results are clear advantages. We look forward to further evaluations of cryoablation especially in comparison to other treatment modalities for early, recurrent, and metastatic breast cancer."

"While this study's patient population is very different from our U.S. based ICE3 study and the target indication for which we have filed for regulatory approval in the U.S., the results of the study are highly valuable for ProSense® users in Europe where our system is approved for general breast cancer treatment. This higher risk patient population included patients with metastatic disease and tumors of up to 4 centimeters in diameter, as compared to our ICE3 study population with early-stage disease and tumors smaller than 2 centimeters in diameter, indicating a very different recurrence rate. Importantly, it further informs and supports the use cases of ProSense® across a broader range of breast cancer diagnoses, from newly diagnosed early-stage to metastatic and recurrent disease," stated IceCure CEO Eyal Shamir. "We thank Dr. Vogl, his team, and University Hospital Frankfurt for their initiative in conducting this study and expanding the body of knowledge for the cryoablation of breast cancer."

This independent study, which received no financial support from IceCure, retrospectively evaluated the efficacy and safety of liquid-nitrogen based CT-guided cryoablation with ProSense®. Patients were treated in out-patient settings with curative intention for non-metastatic patients, while patients with metastases were treated to achieve local tumor control. The patient population (n=45, with 56 tumors) with a mean age of 55.6 ± 12.5 years (range, 31.3-86.0 years) was very heterogeneous and different from IceCure's ICE3 study population and included 11 patients with recurrent tumors and 21 patients with metastatic disease. Patients were observed at three, six, nine, and 12 months, respectively, and after the first year were followed up biannually. There were four cases of local tumor progression, representing a rate of 8.9%. There were no complications observed in any of the 56 ablations and initial complete ablation was achieved in 100% of cases.

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: further evaluations of cryoablation, especially in comparison to other treatment modalities for early, recurrent and metastatic breast cancer. 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 SEC which are available on the SEC's website, www.sec.gov. The Company undertakes no obligation to update these statements for revisions

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