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: March 2025

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 March 10, 2025, IceCure Medical Ltd. (the "Company") issued a press release titled "Breast Cancer Patients who Underwent IceCure's ProSense® Cryoablation in Japan Reported Significantly Higher Satisfaction than Patients who Underwent Standard of Care 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 and fourth paragraphs and the sections titled "Highlights from the study" and "Forward Looking Statements" in the press release attached herewith as Exhibit 99.1 are incorporated by reference into the Company's Registration Statements on Form F-3 (Registration Nos. <u>333-258660</u> and <u>333-267272</u>) and Form S-8 (Registration Nos. <u>333-270982</u>, <u>333-264578</u>, <u>333-262620</u> and <u>333-281587</u>), 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a part thereof from the date on which this Report of Foreign Private Issuer on Form 6-K is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.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 INDEX

99.1 Press release dated March 10, 2025 titled "Breast Cancer Patients who Underwent IceCure's ProSense® Cryoablation in Japan Reported Significantly Higher Satisfaction than Patients who Underwent Standard of Care Surgery"

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.

By: /s/ Eyal Shamir

Name: Eyal Shamir Title: Chief Executive Officer

Date: March 10, 2025

Exhibit No.

Breast Cancer Patients who Underwent IceCure's ProSense® Cryoablation in Japan Reported Significantly Higher Satisfaction than Patients who Underwent Standard of Care Surgery

- Independent study published in Gland Surgery and conducted at Kameda Medical Center in Japan by ProSense® users including Dr. Kizuki Matsumoto and Dr. Eisuke Fukuma
- Patients who underwent cryoablation compared to breast-conserving therapy (BCT) reported significantly higher satisfaction (71.0±18.6 vs. 56.3±16.5) in the primary outcome with a mean follow-up of 4.2 and 4.0 years, respectively
- Data support continued move toward de-escalation of breast cancer treatment from BCT (lumpectomy) to nonsurgical options including cryoablation

CAESAREA, Israel, March 10, 2025 – 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 "Post-treatment patient satisfaction in early-stage breast cancer: Comparison of cryoablation versus breast conservation therapy using BREAST-Q" in the peer reviewed journal *Gland Surgery*. The study was conducted at the Breast Center, Kameda Medical Center in Kamogawa, Chiba, Japan by the co-authors of the article, Dr. Kizuki Matsumoto, Dr. Yuko Asano, Dr. Hiroki Matsui, and Dr. Eisuke Fukuma. A leading expert and breast surgeon, Dr. Eisuke Fukuma has performed over 600 ProSense® breast cryoablation procedures, has presented on ProSense® and has trained other doctors at medical conferences.

In Japan, the de-escalation of treatment for breast cancer continues, with breast-conserving therapy ("BCT"), typically defined as standard of care breast surgery or lumpectomy, representing approximately 60% of all breast cancer cases, as novel nonsurgical options have emerged.

"In this study we aimed to evaluate and compare patient satisfaction after BCT and cryoablation. Assessing the patient's health-related quality of life ("HRQOL") holds significant clinical importance and studies examining long-term satisfaction following cryoablation, particularly in Asian patients, are limited," stated Dr. Kizuki Matsumoto. "Because of improved survival outcomes, breast cancer is becoming a chronic disease, making the survivor's quality of life and satisfaction a major focus of treatment. We were pleased with the outcome of the study and believe the use of cryoablation in breast cancer will be more widespread in the future."

IceCure's Chief Executive, Eyal Shamir commented, "We are grateful to the team at Kameda Medical Center for initiating this important study which focuses on women's satisfaction. The data clearly demonstrate that cryoablation resulted in greater quality of life and patient satisfaction than standard of care surgery in this early-stage breast cancer patient population. We believe these results will support our distribution partner, Terumo Corporation, in its application for regulatory approval of ProSense® for breast cancer in Japan."

Highlights from the study:

- A total of 147 Asian female breast cancer patients underwent cryoablation with ProSense® (n=42) or BCT (n=105). Among the 112 patients with stage 0 or 1 disease, 36 met the exclusion criteria and were excluded from the analysis. The remaining 76 (35 from the cryoablation group and 41 from the BCT group) were included in the analysis.
- The study used the BREAST-Q questionnaire to assess patient HRQOL and satisfaction.
- Patients who underwent cryoablation compared to BCT reported significantly higher satisfaction (71.0±18.6 vs. 56.3±16.5) in the primary outcome, with a mean followup of 4.2 and 4.0 years, respectively. This satisfaction trend was consistent across all the other measures.
- The authors of the study indicate they believe patient satisfaction is higher with cryoablation of breast cancer as it does not involve excision, leaving breast volume and symmetry unchanged.

About ProSense®

The ProSense® Cryoablation System is a minimally invasive cryosurgical tool that provides the 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 procedures for breast tumors.

About IceCure Medical

IceCure Medical (Nasdaq: ICCM) develops and markets advanced liquid-nitrogen-based cryoablation therapy systems for the destruction 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 assessing HRQOL holds significant clinical performance; the belief that cryoablation for treating breast cancer will be more widespread in the future; the belief that the data from the Kameda Medical Center study demonstrate that cryoablation resulted in greater quality of life and patient satisfaction than standard of care surgery in the early-stage breast cancer patient population; and the belief that the results from the Kameda Medical Center study will support Terumo Corporation in its application for regulatory approval of ProSense® for breast cancer in Japan. 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 maintain its relationships with suppliers, distributors and other partners; the Company's ability to maintain its relationships with suppliers, distributors and other partners; the Company's ability to 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

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