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: October 2024

Commission File Number: 001-40753

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

7 Ha'Eshel St., PO Box 3163
Caesarea, 3079504 Israel
(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 October 7, 2024, IceCure Medical Ltd. (the "Company") issued a press release titled "IceCure's ProSense® Featured in 6 Global Studies on Cryoablation of Breast Tumors at the 2024 European Society of Breast Imaging Conference," a copy of which is furnished as Exhibit 99.1 with this Report of Foreign Private Issuer on Form 6-K.

The first four paragraphs, the section that summarizes the six abstracts featuring ProSense® presented at EUSOBI 2024 and the section titled "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. 333-258660 and 333-267272) and Form S-8 (Registration Nos. 333-270982, 333-264578, 333-262620 and 333-281587), 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a part thereof from the date on which this Report of Foreign Private Issuer on Form 6-K is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.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 October 7, 2024 titled "IceCure's ProSense® Featured in 6 Global Studies on Cryoablation of Breast Tumors at the 2024 European Society of Breast Imaging Conference."

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: October 7, 2024

By: /s/ Eyal Shamir
Name: Eyal Shamir
Title: Chief Executive Officer

IceCure's ProSense® Featured in 6 Global Studies on Cryoablation of Breast Tumors at the 2024 European Society of Breast Imaging Conference

- ***ICE3 trial results presentation by Co-Principal Investigator Dr. Kenneth Tomkovich wins EUSOBI 2024 Abstract Award***
- ***THERMAC Trial on Treatment of Breast Cancer with Percutaneous Thermal Ablation (cryoablation, radiofrequency, and microwave) wins EUSOBI Young Physician Scientist Competition – cryoablation demonstrates 94% complete rate of ablation***
- ***IceCure exhibited ProSense® and conducted hands-on demos and Q&A sessions with breast cryoablation experts Dr. Lucía Graña-López and Dr. Federica Di Naro***

CAESAREA, Israel, October 7, 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 that IceCure's ICE3 trial and five additional studies featuring new data on ProSense's® use in breast cancer and fibroadenoma were presented at the 2024 European Society of Breast Imaging (EUSOBI) Scientific Meeting and Annual Conference which took place in Lisbon, Portugal on October 3-5, 2024.

The 2024 EUSOBI Abstract Award was received by Dr. Kenneth Tomkovich, Co-Primary Investigator of the ICE3 trial, for his abstract "Image Guided Cryoablation as a Primary Treatment for Low-Risk Breast Cancers: Results and Imaging Findings of the ICE3 Trial." Dr. Tomkovich remarked, "The significance of a U.S. study gaining such high recognition by a European medical society is a testament to the excellent results—a 96.3% recurrence free rate for those treated with ProSense® and endocrine therapy—that demonstrates cryoablation for small, low-risk breast cancer to be a safe and effective primary treatment option to surgical lumpectomy."

The THERMAC Trial on Treatment of Breast Cancer with Percutaneous Thermal Ablation from the Netherlands was awarded the EUSOBI Young Physician Scientists Prize. The THERMAC trial compared the efficacy of treatment in terms of complete ablation with radiofrequency, microwave, and cryoablation. Cryoablation demonstrated the highest complete rate of ablation at 94% with no adverse events, making it the safest and most effective among the methods used in the trial. In comparison, for patients in the same study who underwent radiofrequency there was a complete ablation rate of 33% and 50% experienced mild to moderate adverse events. For patients in the same study treated with microwave, there was a complete ablation rate of 73% and 40% experienced mild to moderate adverse events.

An estimated 1700+ professionals in attendance at EUSOBI had the opportunity to learn more about the ProSense® Cryoablation System for the treatment of fibroadenoma and breast cancer, both of which are approved indications for ProSense® in Europe. IceCure's booth featured live demonstrations from expert users and the IceCure team, who were on hand to discuss the growing evidence for breast cancer cryoablation and ProSense®'s advantages. On October 4, world-leading cryoablation experts, Dr. Lucía Graña-López of Servizo Galego de Saúde, Spain, and Dr. Federica Di Naro of Azienda Ospedaliero-Universitaria Careggi, Italy were at the booth for demonstrations and Q&A. Both Dr. Grana-Lopez and Dr. Di Naro have previously published studies demonstrating ProSense® destroyed or reduced 100% of breast cancer tumors.

"The fact that six major studies on ProSense® in the treatment of breast cancer were presented, and two won awards, in Europe's most prestigious breast imaging conference speaks volumes to the potential of ProSense® to treat more patients in Europe and around the world," stated IceCure CEO Eyal Shamir. "The growing body of evidence from independent, investigator initiated studies supports our commercial activities globally. We had highly productive talks at the EUSOBI conference with hospitals, clinics, and doctors interested in acquiring ProSense® systems so they can offer a safe and effective minimally invasive option to their patients."

The following is a summary of six abstracts featuring ProSense® Cryoablation, including IceCure's ICE3 trial, presented at EUSOBI 2024:

- **Study Title:** *Image Guided Cryoablation as a Primary Treatment for Low-Risk Breast Cancers: Results and Imaging Findings of the ICE3 Trial – Dr. Kenneth Tomkovich, USA*

  Winner of the EUSOBI 2024 Abstract Award; Received the highest score in the topic

  Conclusion: "The overall 5-year recurrence rate of 4.3% in the ICE3 trial is similar to reported recurrence rates for the current gold standard surgical lumpectomy. Substantial benefits as compared to surgery include performance in an outpatient setting using local anesthesia, only minor reported adverse events, and 100% satisfaction with cosmetic outcomes. Results of the ICE3 trial suggest that cryoablation for small low-risk breast cancers is a safe and effective primary treatment option alternative to surgical lumpectomy. Additional trials are encouraged."

- **Study Title:** *The Treatment of Breast Cancer with Percutaneous Thermal Ablation: Results of the THERMAC trial – Dr. Sophie Wooldrik, the Netherlands*

  Winner of the EUSOBI Young Physician Scientist Competition; Rated among the top 5 abstracts

  Conclusion: In this study, cryoablation demonstrated the highest completed ablation rate (94%) with no adverse events, making it the most effective and safest method compared to radiofrequency and microwave.

- **Study Title:** *The Treatment of Breast Cancer with Percutaneous Thermal Ablation – Cosmetic Outcome and Patient Satisfaction – Dr. Sophie Wooldrik, the Netherlands*

  Conclusion: Patients reported cosmetic outcomes to be more favorable following thermal ablation as compared to surgery. Patients appeared to experience the least among of pain with cryoablation.

- **Study Title:** *Assessment of pain level and quality of life (QoL) in breast cancer (BC) patients treated with Ultrasound-guided Cryoablation – Dr. S.E Balidi Giorgi, D. Di Naro, et al.*

  Conclusion: Ultrasound-guided cryoablation is a non-invasive and effective treatment in breast cancer patients ineligible for surgical excision. It is associated with improvement of pain and QoL. No significant differences in QoL were found between patients treated with cryoablation and hormone therapy compared to patients treated only with cryoablation, confirming that cryoablation maintains good QoL levels in all breast cancer patients.

- **Study Title:** *Single-center Experience with Percutaneous Cryoablation for benign and malignant breast lesions in Romania: Tumor Reduction and Safety – Dr. Georgina Camen, Romania*

  Conclusion: Cryoablation with a LN2 based system was safe and effective for tumors 26 mm and smaller. Data collection continues with high expectations for long-term outcomes.

- **Study Title:** *Single Center Experience with Percutaneous Cryoablation of Fibroadenomas in Hungary: Volume Reduction and Safety – Dr. Teodora Filipov*

  Conclusion: Liquid nitrogen-based cryoablation demonstrated both safety and efficacy for the treatment of fibroadenomas resulting in a 92.9% reduction in volume one year post procedure.

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," "potential," "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 potential of ProSense to treat more patients in Europe and around the world. 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 or changes after the date of this release, except as required by law.

IR Contact:

Email: investors@icecure-medical.com
Michael Polyviou
Phone: 732-232-6914
Todd Kehrli
Phone: 310-625-4462