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, 2019.

Commission File Number: **001-38524**

Titan Medical Inc.
(Exact Name of Registrant as Specified in Charter)

170 University Avenue, Suite 1000
Toronto, Ontario M5H 3B3
Canada
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.
Form 20-F ☐ Form 40-F ☒

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): _X___

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ____

Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

SIGNATURE

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.

TITAN MEDICAL INC.
(Registrant)

Date: August 6, 2019

By: */s/ Stephen Randall*
Name: Stephen Randall
Title: Chief Financial Officer

EXHIBIT INDEX

99.1	News Release dated August 6, 2019.

Titan Medical Announces Successful Completion of Survival Phase of GLP Chronic Procedures with its Single-Port Robotic Surgical System

TORONTO--(BUSINESS WIRE)--August 6, 2019--**Titan Medical Inc. (“Titan” or the “Company”) (TSX: TMD) (Nasdaq: TMDI)**, a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery (“MIS”), announces the successful completion of the chronic procedures performed under Good Laboratory Practice (“GLP”) principles using its single-port robotic surgery system, noting that all animals survived through the follow-up period. Ricardo Estape, M.D., a robotic gynecologic oncology surgeon specializing in robotic single incision surgeries from South Miami Gynecology Oncology Group, led the completion of the GLP studies.

The Company now intends to complete the full GLP studies report and required Summative Human Factors studies, followed by the full Human Factors Evaluation (“HFE”) report to facilitate filing of the Investigational Device Exemption (“IDE”) submission by the end of September.

“We are pleased to have successfully completed the survival phase of the chronic studies performed under the expert guidance of Dr. Estape for our IDE application to the U.S. Food and Drug Administration (“FDA”),” said David McNally, Titan’s chief executive officer. “All of the chronic study animals survived the required time following benign hysterectomy procedures using our single-port robotic surgery system. The demonstration of multi-week survival is a significant achievement for Titan. We are encouraged by the results and our team is now focused on completing the remaining milestones to support a 510(k) filing by year-end 2019.”

Dr. Estape said, “It was a privilege to lead these important studies with Titan’s single-port robotic surgery system and I am pleased that the post-surgery period has elapsed without complications. The survival of the chronic animals, along with the successful completion of other GLP acute animal and cadaver studies, demonstrates that I was able to complete the essential surgical tasks to achieve the desired results using the system. I remain very excited about the potential of Titan’s single-port robotic surgical system. Once cleared for clinical use, it may deliver single-incision surgery performance that could result in reduced trauma and faster healing for my patients.”

About Titan Medical Inc.

Titan Medical Inc. is focused on computer-assisted robotic surgical technologies for application in MIS. The Company is developing a single-port robotic surgical system comprised of a surgeon-controlled patient cart that includes a 3D high-definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body. Titan intends to initially pursue gynecologic surgical indications for use of its single-port robotic surgical system.

For more information, please visit the Company's website at www.titanmedicalinc.com and on EDGAR at www.sec.gov.

Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions, and include, without limitation, statements regarding; the Company's capacity to complete the scheduled milestones on the path to anticipated regulatory filings; the Company's intention to complete human confirmatory studies as part of its IDE application to the FDA; the Company's submission of its IDE application and anticipated approval of such application; the Company's expected timeline for the submission of its 510(k) application with the FDA and technical file for the CE mark; the Company's expectations regarding research and development costs in the future; the Company's timeline for its transition from product development to manufacturing to product launch and planned commercialization and the ability of its new employees and board members to assist with this process. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2019 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure current or prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

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