

SOFTWARE · UNIFOR · 18 DE NOVEMBRO DE 2025

# Abordagem Ultrassonográfica do Escroto Agudo

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Fonte: OpenAlex · Unifor · [Publicação original](#)

INOVAÇÃO

6/10

APLICABILIDADE

8/10

POTENCIAL  
ECONÔMICO

7/10

MATURIDADE

Média

This paper presents an ultrasonographic approach for diagnosing acute scrotum, a medical emergency requiring rapid differentiation between surgical and conservative treatment options. The methodology focuses on ultrasound imaging techniques to identify the diverse causes of acute scrotal pain, which affects approximately 0.5% of emergency department visits.

## NÚCLEO DA ANÁLISE

### Ideia de startup ou produto

A MedTech startup could develop specialized ultrasound software or protocols with AI assistance for acute scrotum diagnosis. This could include diagnostic decision support systems, virtual training modules for medical professionals, and integration with existing ultrasound equipment. The startup could target hospitals, medical schools, and emergency clinics.

### Aplicações práticas

The ultrasonographic approach can be implemented in emergency departments, urology clinics, and medical training institutions. It could serve as both a diagnostic tool and a training system for medical professionals specializing in emergency medicine and urology.

### Potencial de mercado

The market potential lies in the emergency medicine and urology sectors, with potential applications in medical device manufacturing, diagnostic software development, and medical education. The 0.5% incidence rate translates to significant case volumes in healthcare systems worldwide.

## FUNDAMENTO CIENTÍFICO

## Problema abordado

Acute scrotum represents a diagnostic challenge in emergency medicine due to its diverse etiologies and the need for rapid differentiation between conditions requiring immediate surgical intervention and those manageable conservatively. Misdiagnosis can lead to unnecessary surgeries or delayed treatment with potential complications.

## Metodologia

The paper employs ultrasound imaging techniques specifically adapted for acute scrotum diagnosis. While the full methodology isn't detailed in the provided abstract, it appears to focus on standardizing the ultrasound examination protocol for this condition and developing diagnostic criteria.

## Principais descobertas

The approach provides a standardized method for ultrasound evaluation of acute scrotum cases, enabling more accurate and timely diagnosis. This can potentially reduce diagnostic errors and guide appropriate treatment decisions between surgical and conservative management.

### LEITURA PARA GESTÃO PÚBLICA

Healthcare systems could adopt this approach as part of emergency medicine protocols for urological emergencies. It could contribute to standardizing diagnostic procedures, improving healthcare quality metrics, and potentially reducing healthcare costs through more accurate triage and treatment decisions.

### PARCERIA UNIVERSIDADE × EMPRESA

A strategic partnership could be formed between UNIFOR, local hospitals for clinical validation, medical device companies for technology commercialization, and healthcare institutions for implementation. The university could provide the research foundation while industry partners handle scaling and distribution.

### OPORTUNIDADES DERIVADAS

## 4 direções estratégicas identificadas

STARTUP · IMPACTO MÉDIO · HEALTHTECH

### MedTech Diagnostic Solutions

Develop specialized ultrasound software with AI assistance for acute scrotum diagnosis, including training modules for medical professionals.

PARCERIA · IMPACTO ALTO · HEALTHTECH

### University-Hospital-MedTech Consortium

Collaboration between UNIFOR, local hospitals for clinical validation, and medical device companies for technology development and implementation.

POLÍTICA PÚBLICA · IMPACTO MÉDIO · HEALTHTECH

### Emergency Medicine Protocol Standardization

Integration of this diagnostic approach into national healthcare protocols for urological emergencies.

## Specialized Ultrasound Diagnostic Package

Development of a commercial diagnostic package including protocols, training materials, and software integration for existing ultrasound equipment.

### ABSTRACT ORIGINAL

*O escroto agudo é uma emergência médica caracterizada por dor escrotal importante, edema e eritema, com início súbito que pode variar de minutos a 24-48 horas. Esse quadro representa cerca de 0,5% de todas as visitas aos pronto-socorros. As causas de escroto agudo são diversas, e um diagnóstico rápido e preciso é crucial para diferenciar entre condições que podem exigir intervenção cirúrgica imediata e aquelas que podem ser manejadas de forma conservadora [1].*

### PALAVRAS-CHAVE

Initial training · Component (thermodynamics) · Term (time) · Trouble shooting · Training system