

- [15] 彭丽媛,王海澜.糖尿病微血管障碍的发生机制及其与周围神经病变的关系[J].医学综述,2013,19(3):513-515.
- [16] Miyamoto H, Halpern EJ, Kastlunger M, et al. Carpal tunnel syndrome: diagnosis by means of median nerve elasticity—improved diagnostic accuracy of us with sonoelastography[J].Radiology,2014,270(2):481-486.
- [17] Chen RJ, Lin CC, Ju MS. In situ biomechanical properties of normal and diabetic nerves: an efficient quasi-linear viscoelastic approach [J].J Biomechanics,2010,43(6):1118-1124.
- [18] Fukashi I, Miki T, Rie K, et al. Elasticity of the tibial nerve assessed by sonoelastography was reduced before the development of neuropathy and further deterioration associated with the severity of neuropathy in patients with type 2 diabetes[J].J Diabet Invest, 2016, 7(3):404-412.
- [19] Kantarci F, Ustabasioglu FE, Delil S, et al. Median nerve stiffness measurement by shear wave elastography: a potential sonographic method in the diagnosis of carpal tunnel syndrome [J].Eur Radiol, 2013,24(2):434-440.
- [20] Dikici AS, Ustabasioglu FE, Delil S, et al. Evaluation of the tibial nerve with shear-wave elastography: a potential sonographic method for the diagnosis of diabetic peripheral neuropathy [J].Radiology, 2016,282(2):494-501.
- [21] 滕飞,周显礼,薛伟力,等.超声弹性成像评估2型糖尿病患者胫神经病变的应用价值[J].临床超声医学杂志,2018,47(11):163-167.

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· 病例报道 ·

### Ultrasonic diagnosis of one testicular rupture with contralateral testicular dislocation: a case report

## 超声诊断一侧睾丸破裂合并对侧睾丸脱位 1 例

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[中图法分类号]R445.1

[文献标识码] B

患者男,38岁,因车祸致阴囊疼痛伴全身多发伤4h来我院就诊。体格检查:阴囊肿大,皮肤紫红,触痛明显,左侧腹股沟区触及一肿块,大小约6.0 cm×3.0 cm,可活动,质韧,自诉无隐睾史。超声检查:整个阴囊壁增厚,较厚处约1.5 cm,右侧阴囊内睾丸大小约3.9 cm×2.8 cm×2.6 cm,形态欠规则,实质回声不均匀;CDFI示其内可探及少许血流信号,周围可见不规则液性无回声区。睾丸右上方可见一椭圆形不均质低回声包块,大小约6.6 cm×4.8 cm×4.3 cm,与睾丸分界欠清;CDFI示其内未探及血流信号(图1);左侧阴囊内未见睾丸附睾回声,向上扫查腹股沟区,左侧腹股沟区皮下见一包块,大小约6.7 cm×2.7 cm×1.5 cm,边界清,形态规整,实质呈中等均匀回声,与睾丸形态及回声相似,CDFI于其内可探及少许血流信号,嘱患者做呼吸运动,包块随之运动,停止憋气后未见包块回纳入腹腔内(图2)。超声提示:①右侧睾丸区异常,结合病史考虑右侧睾丸破裂并阴囊内血肿;②左侧睾丸脱位;③阴囊壁水肿。患者后于外院行手术治疗,证实上述诊断。

讨论:睾丸位置表浅,受暴力作用后容易发生损伤,睾丸损伤可分为睾丸挫伤、睾丸破裂、睾丸脱位、睾丸开放性损伤4种类型。其中睾丸挫伤及破裂较多见。睾丸破裂典型超声表现为睾丸形态明显失常,表面不规整,包膜线中断,内部呈不规则无回声区和斑点状杂乱回声,周边或下方可见液性无回声区和

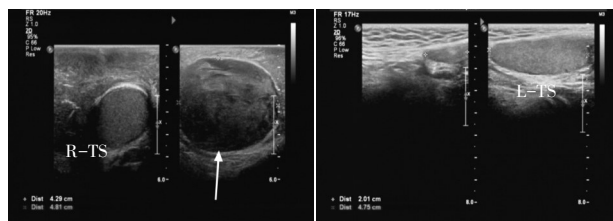


图1 声像图示右侧睾丸破裂血肿 图2 声像图示左侧睾丸脱位到腹股沟区(L-TS:左侧睾丸)

不规则强回声,常合并鞘膜积血。单纯睾丸脱位超声表现为阴囊空虚,常在腹股沟管外环口附近软组织内见一与正常睾丸回声相似的结构,血流信号稀少<sup>[1]</sup>。本例患者受外伤后,睾丸发生破裂及脱位,右侧睾丸在外力作用下致白膜中断,睾丸实质受伤出血积聚在鞘膜腔内,部分被周围组织包裹形成血肿,左侧睾丸在血肿及外力共同挤压下被推向腹股沟区的浅表软组织内。超声可明确显示睾丸破裂及脱位,为临床及时、准确诊断提供了可靠依据。

#### 参考文献

- [1] 周永昌,郭万学.超声医学[M].6版.北京:科学技术文献出版社,2003:1169-1170.

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