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**Introduction & Objectives:** Patients with biochemical recurrence (BR) after salvage post prostatectomy radiotherapy (SRT) represent an increasing clinical challenge for urologists. The use of modern diagnostic techniques such as Ga-PSMA PET/CT has improved accuracy identifying anatomic sites of recurrence with very low PSA levels. However, evidence in this clinical setting is still poor and even EAU Guidelines lack specific recommendations. There is an urgent need for diagnostic and therapeutic algorithms to deal with these patients. We present the approach used in our institution and the results of local recurrences managed with local treatment.

**Materials & Methods:** After an institutional review board approval, we prospectively analyzed men with BR after SRT. Following our multidisciplinary approved diagnostic sequence (g.1) we obtained histologic confirmation of patients with local recurrences exclusively identified by GaPSMA PET/CT and designed individualized local treatment for each of them.

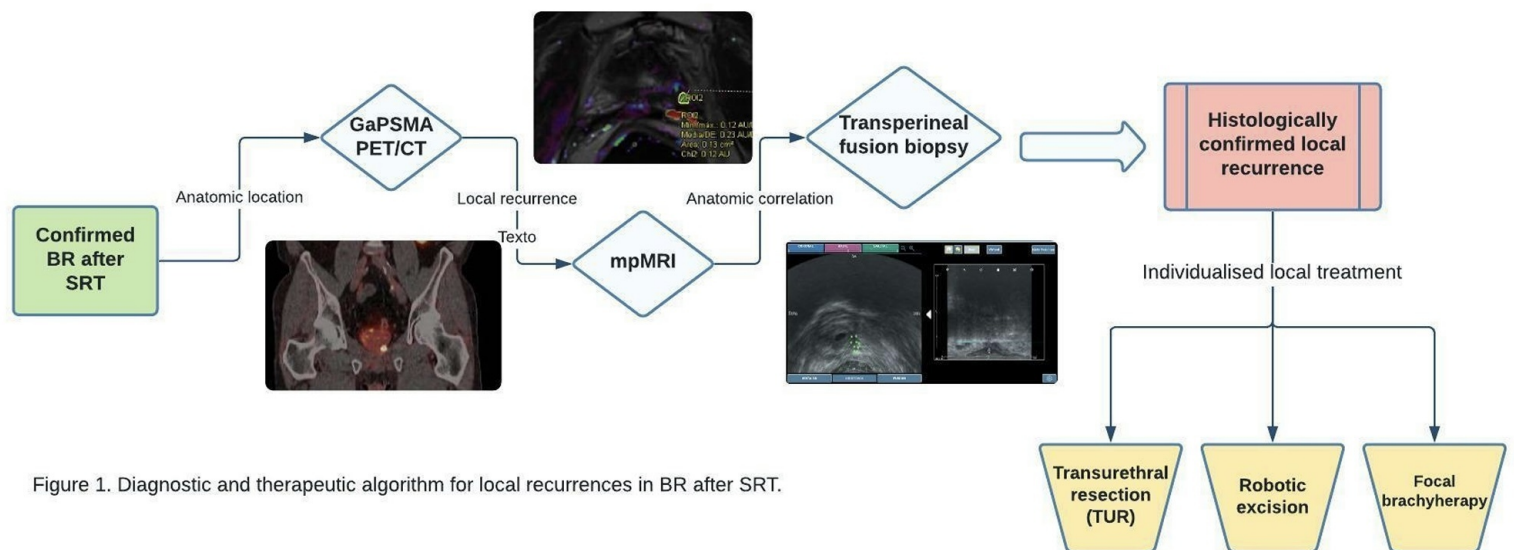


Figure 1. Diagnostic and therapeutic algorithm for local recurrences in BR after SRT.

**Results:** We present 8 cases of local recurrence after SRT. 4 were histologically confirmed using the algorithm, 1 was confirmed after local treatment and 3 could not be confirmed. Median PSA at GaPSMA PET/CT was 0,6(IQR:2,15)ng/ml. Mean follow-up was 20(IQR:21,25) mo. 3 lesions were located close to urethro-vesical anastomosis/bladder neck and were treated with TUR, 1 on pararectal space with robotic excision and 4 with HDR

brachytherapy(BQT). 6 patients were on hormone therapy at the end of the follow up with a median time from recurrence treatment to systemic therapy of 10(IQR:9) months. 4 had complete local disease control in GaPSMA PET/CT being 2 of them disease free.

Initial Histology	Margins	Type of SRT	PSA	GaPSM	Recurrence treatment	Local control	Current Status
G8(4+4)	+	Local	0,4	TUR		Yes	M+
G6(3+3)	-	Local	3,9	TUR		Yes	N+ pelvic
G7(3+4)	+	Local + lymph nodes	3	TUR		No	M+
G7(3+4)	+	Local	0,7	Robotic excision		No	Local recurrence
G7(3+4)	-	Local + lymph nodes	0,5	BQT		No	Local recurrence
G7(3+4)	+	Local	1,4	BQT		Yes	Free
G6(3+3)	-	Local + lymph nodes	0,4	BQT		No	M+
G6(3+3)	+	Local	0,3	BQT		Yes	Free

**Conclusions:** The diagnostic sequence: Ga-PSMA PET/CT→MRI→Transperineal fusion biopsy in patients with post SRT BR allows us to identify patients with only-local recurrences who may benefit from local therapies avoiding or at least delaying systemic therapy. Long term implications of these therapies in terms of survival are still unclear and should be evaluated with larger series and longer follow-up.