Table S1 Characteristics of patients with squamous cell carcinoma of the penis based on existence of a prior primary from SEER 18 (blank or ambiguous data were excluded)

| Variable                        | No primary, n (%) | Previous primary, n (%) | P value |
|---------------------------------|-------------------|-------------------------|---------|
| Primary site                    |                   |                         | 0.010   |
| Prepuce                         | 679               | 113                     |         |
| Glans penis                     | 1,646             | 380                     |         |
| Body of penis                   | 220               | 58                      |         |
| Overlapping lesion of penis     | 202               | 35                      |         |
| Pathological grade              |                   |                         | 0.002   |
| Grade I                         | 1,329             | 248                     |         |
| Grade II                        | 1,910             | 418                     |         |
| Grade III                       | 843               | 232                     |         |
| Grade IV                        | 29                | 7                       |         |
| Material status                 |                   |                         | <0.001  |
| Married                         | 2,795             | 655                     |         |
| Previous married                | 954               | 262                     |         |
| Never married                   | 838               | 123                     |         |
| Extent of disease               |                   |                         | 0.079   |
| Localized                       | 2,847             | 672                     |         |
| Regional                        | 1,458             | 302                     |         |
| Distant                         | 253               | 45                      |         |

Grade I, Well differentiated; Grade II, Moderately differentiated; Grade III, Poorly differentiated; Grade IV, Undifferentiated; anaplastic