BLADDER CANCER

Normal urothelium

Hypertrophy

Low-grade papillary neoplasm

Bladder cancer

Germline mutations

Overexpression of EGFR, ERBB2, BRAF

Increased cell proliferation

DNA damage

MAPK signaling pathway

JAK-STAT signaling pathway

PI3K-AKT signaling pathway

RAS signaling pathway

Hippo signaling pathway

DNA repair pathway

Cell cycle progression

Apoptosis

Oncogenic transformation

DNA methylation

Inflammation

Immune evasion

Evasion of immune surveillance

Tumor suppressor genes

TP53, CDKN1A, RB1

Genetic instability

DNA amplification

Gene expression

Protein synthesis

Cell growth

Cell differentiation

Cell migration

Cell invasion

Cell survival

Cell death

Angiogenesis

Metastasis

Recurrence

CIS / dysplasia

Early stage bladder cancer

Advanced stage bladder cancer

Metastatic disease

Prognosis

Survival rate

Treatment options

Chemotherapy

Radiation therapy

Surgery

Immunotherapy

Targeted therapy

Supportive care

Quality of life

Symptoms

Diagnosis

Staging

Prognostic factors

Risk assessment

Treatment decision

Outcome

Follow-up

Quality of life

Support services

Complementary therapies

Patient education

Patient support

Counseling

Nutritional support

Psychological support

Physical therapy

Occupational therapy

Social work

Financial assistance

Patient advocacy

Legal advice

Insurance counseling

Referrals

Discharge planning

Home care services

Community resources

Support groups

Online communities

Patient forums

Patient resources

Patient support organizations

Patient advocacy networks