Behavioral Approach of the Parents and Surgeons in Nuck Canal Cysts: 15 Years of Experience

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Aim: Nuck canal cyst (NCC) is a rare condition that can be confused with other pathologies that cause swelling in the inguinal region. This study aimed to evaluate the behavioral approach of the family and surgeon in operated children diagnosed with NCC.

Methods: Hospital records of children with confirmed NNS's who underwent surgery for inguinal cysts/mass in our department between January 2008 and 2023 were retrospectively reviewed. Demographic characteristics, complaints, history, examination and surgical findings were evaluated.

Results: In 15 girls diagnosed with NCCs over 15 years, the median age at diagnosis was 37 months (range 2–110). Eight patients (53%) were preterm, six (40%) were term, and gestational age was not recorded in one. The swelling was noticed on the same day in three patients (20%), within one week in five (33%), and after more than one week in three (20%). Seven patients (46%) presented to the emergency department, and eight (53%) through an outpatient appointment.

The lesion was detected incidentally in two patients (13%), one due to umbilical swelling and the other during early follow-up after right inguinal hernia repair. The history was not recorded in two patients. The swelling was detected on physical examination in three patients (20%) but not in the others. Among the 10 patients (67%) with a preliminary diagnosis of inguinal hernia, the swelling was bilateral in two, and in five, the preliminary diagnosis was NCC.

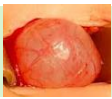
In three patients who presented to the emergency department, the swelling was noticed on the same day; they were operated on with preliminary diagnoses of right incarcerated inguinal hernia, left reducible sliding over hernia, and right incarcerated sliding over hernia, respectively. Two patients (13%) underwent elective surgery, while 13 (87%) were operated on urgently. During surgery, NCC was found on the right side in 12 patients (80%) and on the left in three (20%). In 14 patients, NCCs were excised together with high ligation of the patent processus vaginalis; the external ring was closed in four patients and narrowed in one. Histopathological examination revealed NCC in 12 patients, fibroadipose tissue in one, fibroadiposis-muscular tissue in one, and fibrovascular tissue in one. No perioperative or early/late postoperative complications occurred, and no recurrences were observed.

n:15	Values
Diagnostic Age	37 months (ranges 2–110)
Gestational Age	Preterm 8 (53 %), Term 7 (47 %)
Symptom Onset	Same day 3 (20 %), Within a week 5 (33 %), After a week 3 (20 %)
Preliminary Diagnosis	Inguinal hernia 10 (67 %), NCC 5(33%)

Table 1. Patient Demographics & Baseline Features

Variable	Values
Surgical procedure	NCC excision + high ligation 14, NCC excision 1
Laterality	Right 12 (80%), Left 3 (20%)
Histology	NCC 12, Fibroadipose 1, Fibroadiposis+Muscular 1, Fibrovascular 1
Complications, Recurrence	None

Table 2. Surgical Management, Histology, and Outcomes



Conclusion: It was determined that parents applied urgently/within the first week when the-swelling was first noticed, and surgeons operated urgently with the prediagnosis of incarcerated inguinal hernia or sliding over hernia due to unreductable swelling. It was noteworty that 53% of were preterm and 80% were on the right-side.

Conflict of Interest Statement: The authors declare no conflict of interest related to this study.