

## BNO-IVP Examination Wilms Tumor With Suspicion General Hospital Haji Adam Malik

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**Abstract**-Is a collection of abnormal cell tumors formed by cells that grow continuously indefinitely, not coordinated with the surrounding tissue and are not useful to the body. The tumor consists of malignant tumors (malignant) and benign tumors (benign). Wilms tumor is a malignant tumor of the kidney that is often found in children. These tumors are rarely found at birth or in the first months of birth. Objective radiographic examination BNO - IVP on suspicion of Wilms tumor is to show anatomical features, functions and defects - abnormalities in the urinary tractus particularly Wilms tumor by inserting a positive contrast media through intravenous. On radiographic examination BNO - IVP on Mr. MR perselubungan results found hemiabdomen homogeneous in the top right to bottom which pushes the air to the left and lower intestine and secretion and excretion kidney function did not seem right to the end of the examination (30 minutes). On radiographic examination BNO - IVP with suspicion \ Wilms tumor performed by the projection Antero - Posterior which in this case was able to show the anatomy and homosexuality.

**Keywords** : Urinary tractus, Wilms Tumor

### 1. Introduction

Is a collection of abnormal cell tumors formed by cells that grow continuously indefinitely, not coordinated with the surrounding tissue and are not useful to the body. The tumor consists of malignant tumors (malignant) and benign tumors (benign). (Hima, 2005). Wilms tumor is a malignant tumor of the kidney that is often found in children. These tumors are rarely found at birth or in the first months of birth. (Rasad, 2005). The clinical symptoms will be seen early in the disease, which may include high fever accompanied by flatulence. Patients also experienced a drastic weight loss due to loss of appetite. It is also difficult to sleep at night, and the pain unusual abdominal area. It can last for several weeks, then new abnormalities clear, which began to appear bulging abdomen with the abdominal wall that looks slightly bluish and umbilicus reddened area. The development of diagnostic imaging, especially in the use of X-ray lately also instrumental in improving the accuracy of diagnosis of Wilms tumor. It is expected that the tests can produce imaging optimally so as to help make the diagnosis. Examination BNO-IVP (Intra Venous Overzich Nier Buick pyelography) is one alternative that can be done. It is expected that the tests can produce imaging optimally so as to help make the diagnosis. Examination BNO-IVP (Intra Venous Overzich Nier Buick pyelography) is one alternative that can be done. It is expected that the tests can produce imaging optimally so as to help make the diagnosis. Examination BNO-IVP (Intra Venous Overzich Nier Buick pyelography) is one alternative that can be done.

### 2. Research methods

#### 2.1 Types of research

This study uses descriptive qualitative research. Descriptive qualitative study was a method in researching the status of a group of people, an object with the aim of making descriptive, picture or painting in a systematic, timely and reliable information on the facts or phenomena investigated.

#### 2.2 Time And Place Research

##### 1) Research time

The research was conducted on February 2017.

2) Research Sites

Place of research conducted at the General Hospital Haji Adam Malik Medan.

**2.3 Data collection technique**

In this research phase in order to obtain valid data and can be justified, it can be obtained through:

1) Consultations / Interviews

As for the data collection, the researchers conducted interviews with patients, family consultation with the patient and technologist, Radiology Specialist Doctor, Specialist Doctor of Urology. It thus carried out with the aim to obtain broad and comprehensive data in accordance with current conditions.

2) Observation

Direct observation conducted by the researchers can be realized by recording the form of information related to the radiology room General Hospital Haji Adam Malik Medan. Also observe how Radiographic examination techniques BNO - IVP on suspicion of Wilms tumor. For that researchers can conduct direct observations in obtaining evidence relating to the object of research.

**2.4 Data analysis**

Phase analyzing the data is the most important stage in the determination of a study. The data were then analyzed with the aim of simplifying the data into a form that is easier to read and interpret. In addition, data are deployed and exploited in order to be used to address the issue raised in the study. This analysis is based on observations in the field or experience based on data obtained from interviews and observations were then compiled and drawn conclusions.

**3. Results and Discussion**

**3.1 Result**

a. patient identification

Name : Mr. MR  
Age : 1 year  
Gender : Male  
Date of inspection : February 2017  
Examination : BNO - IVP  
doctors Readers : Dr. Maisara Henry S. sprad

b. Radiographic Examination Procedure BNO - IVP General Hospital Haji Adam Malik Medan.

Radiographic examination procedure BNO - IVP on suspicion of Wilms tumor that is usually done in the radiology unit of the General Hospital Haji Adam Malik as follows:

- 1) Patients arrived with a letter of introduction radiography BNO - IVP
- 2) Patients register at the counter radiological

c. patient preparation

- 1) The day before the examination of patients to eat porridge + ketchup.
- 2) Dinner last night at 11:00 pm.
- 3) At 12.00 am taking medication Pediatre Dulcolax.
- 4) At 01.00 pm when the patient may feel thirsty to drink 1 cup, after which the patient fasting.
- 5) At 05.00 pm the next patient was given a laxative for children.
- 6) Patients come to the radiology in the fasting state.

Before the test the patient should be briefed on examination procedures which:

- 1) Radiology staff should pay attention to the patient's urea and creatinine is normal or above normal, if not normal then the examination can not be continued due to the radiographic examination BNO - IVP on suspicion of Wilms tumor with the injection of positive media kontras through intravenous.
- 2) Do a skin test to see if the patient is allergic to a substance kontras media.
- 3) Removing the smock to avoid artifacts from buttons.
- 4) Make it clear to the patient or the patient's family that accompany so the patient does not move during the police interrogation.

d. Preparation Tools and Materials

Preparation tools and materials used in radiographic examination BNO - IVP on suspicion of Wilms tumor in radiological installations General Hospital Haji Adam Malik is as follows:

- 1) Aircraft Type : F52 8C / Medical Diagnostic X-ray  
 Brand Unit Aircraft : HITACHI  
 voltage Sign : 220 volts  
 Aircraft capacity : 500 mA  
 Aircraft services Radiography  
 time Range : 0.02 to 3 seconds kV  
 Range : 44-125 kV

2) contrast media

During an investigation BNO - IVP need to use a contrast agent media. It aims to show the physiological functions of the urinary system as contrast agents bypassed by the media but by permission of the sender and the family doctor concerned. Before the injection of contrast media agent then advance the examination procedure had to be explained to patients and their families. Approval is made in written form. This as evidence if someday there is a serious problem related to injection of a contrast agent, then it will no longer be the responsibility of the hospital.

**INFORM CONSENT**

PERSETUJUAN PEMBERIAN ZAT KONTRAS MELALUI SUNTIKAN I.V ATAU ORAL/ANAL	NAMA : .....
	UMUR : .....
	JENIS KELAMIN : .....

Saya ..... dengan ini menyetujui untuk diberikan zat kontras terhadap pasien..... baik melalui suntikan intravena atau melalui oral atau anal. Saya menyatakan bahwa sifat dan tujuan dari pemberian kontras tersebut telah dijelaskan kepada saya oleh petugas..... dan mengerti akan resiko serta manfaat atas prosedurnya.

Medan,.....  
dr. Pemeriksa

Pasien/Wali  
.....  
(.....)

Fig 1. Informed Consent

Positive media contrast agent injected intravenously after taking plain image without contrast. Once it is done shooting for capturing images using contrast agents of positive media. The positive media contrast agents used in this examination is Iopamiro, injected intravenously as many as 17 cc, with a current patient weight was 8.5 kg.

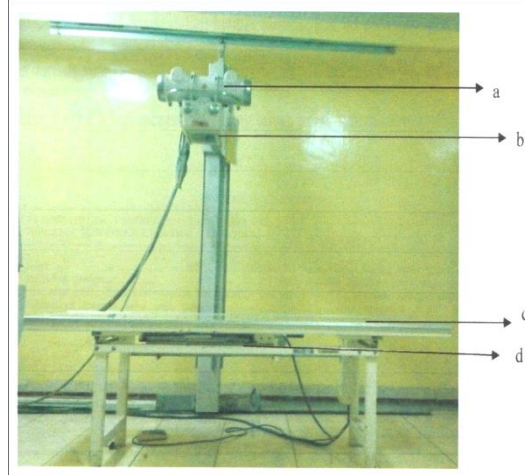


Fig 2. Aircraft HITACHI Hospital. H.Adam Malik

Caption :

- a. X-ray tube
- b. collimator
- c. the examination table
- d. standart tapes
- e. Radiographic examination techniques BNO-IVP
  - a) patient position  
Sleep on your back on an exam table (supine position).
  - b) position Objects  
Place a mid-body on the exact middle of the examination table with abdominal AP is set to true. Both hands placed beside the body and legs straightened. Cassette placed horizontally under the object. Eksposi made during expiration and hold the breath.

In the implementation of BNO-IVP examination performed several times pemotoan with supine in the AP projection from photos BNO and continued with the inclusion of contrast medium in which the purpose of inspection of each photo as follows:

  - 1) BNO  
Objective Examination : To assess patient preparation, see the general state of the abdominal cavity if it is clean of feces and air as well as to determine the next eksposi factor.
  - 2) BNO - IVP 3 minutes post injection  
Objective Examination : To see the contrast agent filling the media in the kidney area and 1/3 proximal portion of the ureter.
  - 3) BNO - IVP 10 Menti post injection  
Objective Examination : To see a contrast agent media fills most kidney and ureter as well as the entire region seikit to Blass from Antero posterior side.
  - 4) BNO - IVP 30 minutes post injection  
Objective Examination : To see the contrast media fills the entire area Blass and ureter.

After radiographic examination ekpertise author gives results as follows:

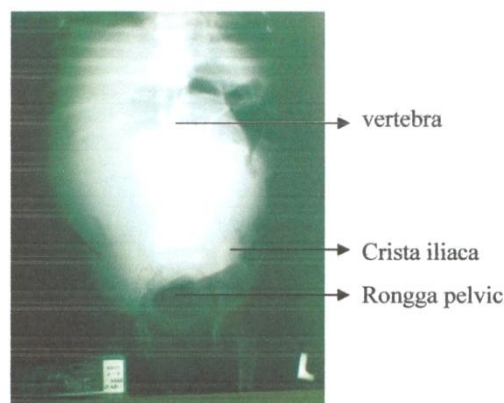


Fig 3. Results Plain radiographs Abdomen photo

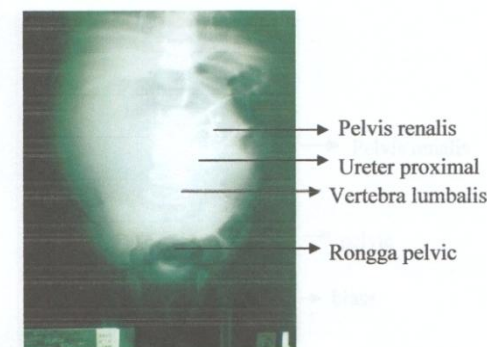


Fig 4. Results of radiographic 3 minutes post injection

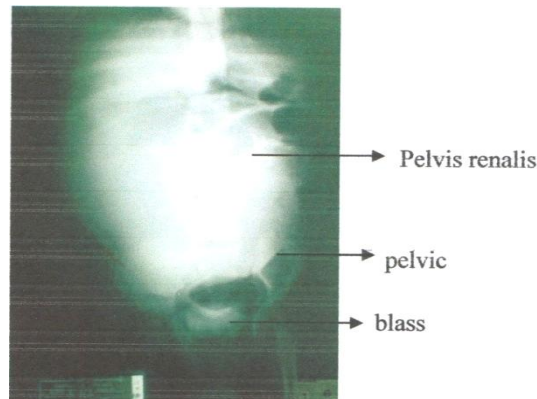


Fig 5. Results of radiographic 10 minutes post injection

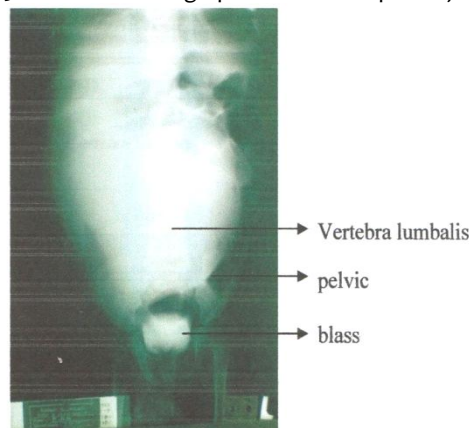


Fig 6. Results of radiographic 30 minutes post injection

The results of radiographic interpretation BNO - IVP with Wilms' tumor suspicion of radiology specialists are as follows:

1) BNO

Looks perselubungan hemiabdomen homogeneous in the top right to bottom that pushes air intestine to the lower left.

Conclusion: suggestive mass in the right hemiabdomen DD /: right renal mass.

2) IVP

Secretion and excretion kidney function did not seem right to the end of the examination (30 minutes)

Conclusion: non-visualized right kidney, right kidney mass likelihood (Wilms tumor).

### 3.2 Discussion

From the results of radiographic examination BNO - IVP is done on Tn.MR at the General Hospital Haji Adam Malik found the right Wilms tumor. Wilms tumor (nephroblastoma) is a malignant tumor of the kidney that is often found in children. These tumors are rarely found at birth or in the first months of birth.

The clinical symptoms will be seen early in the disease, which may include high fever accompanied by flatulence. Patients also experienced a drastic weight loss due to loss of appetite. It is also difficult to sleep at night and pain unusual abdominal area. It can last for several weeks, then just obvious abnormalities, which began to appear bulging abdomen with the abdominal wall that looks slightly bluish and umbilicus reddened area. On radiographic examination BNO - IVP on Mr. MR carried out using Antero Posterior projections. Before pemotoan BNO - IVP patients enjoined to do fasting. Because Tn.MR pediatric patients,

On radiographic examination BNO - IVP on Mr. MR find results perselubungan hemiabdomen homogeneous in the top right to bottom which pushes the air to the left and lower intestine and secretion and excretion kidney function did not seem right to the end of the examination (30 minutes).

#### 4. Conclusion

- a) BNO-IVP examination on suspicion of Wilms tumor using Antero-posterior projection, which in this case was able to show the anatomy and homosexuality.
- b) Good communication to patients is essential to support the smooth process of examination
- c) BNO-IVP radiography with Wilms tumor suspicion needs to be done to prepare the patient first

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