

CHAPTER IV

RESEARCH METHOD

4.1. Research aspects

4.1.1. Field

This research was in the field of human genetics, particularly cytogenetic.

4.1.2. Location

Clinical and Cytogenetic analysis was obtained from Molecular and Cytogenetic Laboratory archive of Center for Biomedical Research, Faculty of Medicine Diponegoro University Semarang.

4.1.3. Period

This research had been conducted on May 2017 until Augusts 2017.

4.1.4. Design

The study was a retrospective descriptive study.

4.2. Population

Primary amenorrhea patients whom referred to CEBIOR in Semarang included in this study from the period January 2004 to January 2017.

4.2.1. Samples

Primary amenorrhea patients who met the inclusion and exclusion criteria.

4.2.1.1. Inclusion Criteria

All patients who referred to CEBIOR with primary amenorrhea and had available data, with the criteria: thirteen years old with undeveloped secondary sexual signs or 16 years old with well developed secondary sexual signs.

4.2.1.2. Exclusion criteria

1. Patient with unavailable data

4.2.1.3. Sampling Methods

The sampling method was purposive sampling that patient had been selected according to the purpose of the study.

4.2.2.4. Sample Size

All primary amenorrhea patients who met the inclusion and exclusion criteria from the period January 2004 until January 2017 had been used as a research subjects. This is the continuous study of (Dr.dr.Achmad Zulfa Juniarto, M.Si.Med,Sp.And) on DSD research.

4.3. Variables

4.3.1. Independent variable

Karyotype results

Scale: Nominal

4.3.2. Dependent variable

4.3.2.1. Clinical profile

- 1- Height

Scale: nominal

2- Weight

Scale: nominal

3- Tanner stage

Scale: ordinal

4- Prader stage

Scale: ordinal

5- Other dysmorphic features

Scale: nominal

4.3.2.2. Score system

Scale : ordinal

4.4. Operational definitions

4.4.1. Karyotype results

To observe the presence of chromosomal abnormalities in the form of numerical \structural\and mosaic with painting G-appear

Scale: nominal

4.4.2. Clinical profile

1. Height

The data of height had been obtained from medical records, the height expressed by centimeter.

Scale: nominal

2. Weight

The data of weight had been obtained from the medical records. The weight expressed by kilogram

Scale: nominal

3. Dysmorphic features

The data of dysmorphic features had been obtained from medical records.

Dysmorphic features included:

- Craniofacial deformity: Epicanthal fold, telecanthus, high arched palate, low posterior hairline, low position of the ears, flat occiput and broad forehead.
- Neck deformity: Short neck, webbed neck, Adams apple
- Chest deformity: Shield chest, wide nipple space, pectus excavatum and pectus carinatum.
- Spine deformity: Scoliosis, kyphosis
- Upper and lower limb deformities: short IV and V metacarpal, clinodactyly, tapered fingers, cubitus valgus, sandal gap and disproportion of the upper and lower extremities.

Scale: nominal

4. Tanner stage

The data of Tanner stage had been obtained from the medical records.

It consists of 5 stages, the stage 1 is elevation of papilla only and no pubic hair, stage 2 is breast bud: elevation of breast and papilla as a small mound and enlargement of areola diameter and the pubic hair is sparse slightly pigmented downy hair along the labia. Stage 3 is additional enlargement of breast and areola with no separation of their contours the pubic hair is sparse over the pubic region and is darker, coarse and curlier. In stage 4 the areola and papilla project from the surface of breast to form

secondary mound. Stage 5 is mature stage with projection of papilla only with recession of the areola to the general contour of the breast pubic hair is adult in quantity and type.⁴²

Scale: ordinal

5. Prader stage

The data of Prader stage had been obtained from the medical records.

The Prader stage consist of 6 degrees from 0 to 5, scale 0 is normal female genitalia, the others degree is a different form of virilizationand sca; 5 is male external genitalia.

Scale: ordinal

4.4.3. Score system

This scoring system consist of 4 scores. score 1 for primary amenorrhea symptom only, score 2 for primary amenorrhea and poor secondary sexual signs, score 3 for primary amenorrhea, poor secondary sexual signs and short stature, score 4 for primary amenorrhea, poor secondary sexual signs, short stature and webbed neck. All the patients had been distributed to correlated scores according to their clinical profiles and then confirmed with the karyotype results.

Table 2. Scoring system for primary amenorrhea patients

Score	Clinical criteria
1	PA
2	PA, poor secondary sexual development
3	PA, poor secondary sexual development and short stature
4	PA, poor secondary development, short stature, webbed neck.

PA= primary amenorrhea

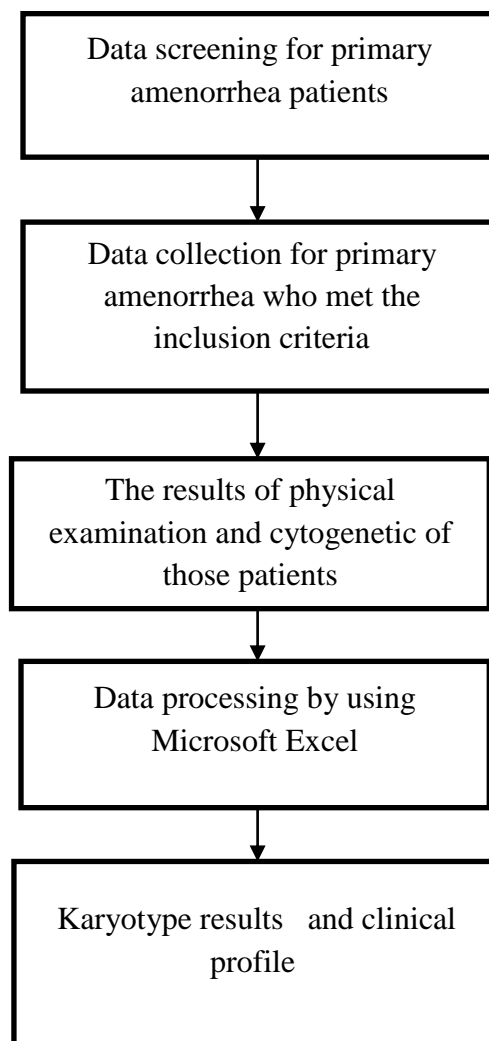
Poor secondary sexual signs = Tanner stage less than 4 with spare or abscent axillary hair

4.5. Data collection

The secondary data had been obtained from medical records unit Molecular and Cytogenetic Center For Biomedical Research CEBIOR.

1. Clinical profile had been obtained from the secondary data of the medical records of the patients whom examined by CEBIOR team, the data included the following: age, weight, height, Tanner stage, Prader stage diagnosis and other dysmorphic features.
2. Karyotype results had been obtained from the secondary data of the medical records of the patients whom examined in CEBIOR.

4.6. Research Scheme



4.7. Analysis of Data

Data analyzed using descriptive method and presented in tables and graphic.

