Alfred Blalock MD, FACS
The “Blue Baby” Operation

Luca A. Vricella MD, FACS
Director, Johns Hopkins Pediatric Cardiac Surgery

American College of Surgeons Clinical Congress, Chicago 2015
1944

Tetralogy of Fallot

1. Narrowing of the pulmonary valve
2. Thickening of wall of right ventricle
3. Displacement of aorta over ventricular septal defect
4. Ventricular septal defect: opening between the left and right ventricles

Four abnormalities that result in insufficiently oxygenated blood pumped to the body.
PROTAGONISTS of the “Blue Baby Operation”

Eileen Saxon

“.. On evening rounds, we arrived at the crib of this fifteen-month old baby…

I was immediately astounded by the deep cyanotic appearance of the child, much more cyanotic than any patient I had ever seen before: the lips were a deep, dark blue.. The face was suffused with dilated veins, the conjunctiva almost purple.”

William P. Longmire

*Alfred Blalock: his life and times*

1991
PROTAGONISTS of the “Blue Baby Operation”

Helen B. Taussig (1898 – 1986)

Transferred from Boston to Baltimore to focus on pediatric heart disease

Limited diagnostic armamentarium

Dyslexic and deaf

First female President of the American Heart Association
PROTAGONISTS of the “Blue Baby Operation”

Alfred Blalock  (1899 - 1964)

After graduating Medical School, he is fired from Johns Hopkins Residency

Surgical training and research on hemorrhagic shock at Vanderbilt

Severe form of tuberculosis

Arrived at Johns Hopkins as Chief in 1941, not having done a PDA ligation
PROTAGONISTS of the “Blue Baby Operation”

Vivien Thomas (1910 - 1985)

Grandson of a slave, could not go beyond high school for economic reasons

Research technician in Blalock’s lab at Vanderbilt

Technically gifted and creative

Brought to Hopkins as “Janitor” in 1941

*Honoris Cause* Doctor, 1976
The “Blue Baby Operation”
SURGICAL TREATMENT OF PULMONIC STENOSIS.

TRAITEMENT CHIRURGICAL DE LA STENOSE DE L'ARTERE PULMONAIRE.
Clinical observation and laboratory investigation led to the planning and performance of the first operation to treat cyanotic congenital heart disease.

The Blalock-Taussig shunt allowed for thousands of children to be palliated until complete correction with open heart surgery became a reality.

Model for collaboration across specialties, transcending racial and gender barriers.
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