

COLLO-MIS

CARE FOR PRESERVATION

CLINICAL CASES



OK
sistema
Lima mt-mt
Cpv - Cpv

cut OK

soluzione
di veyna
proposta Lima

***“The early clinical experience with COLLO-MIS
is very satisfactory. First follow-up results are really promising”.***

G. Rinaldi, MD
Niguarda Cà Grande Hospital, Milan, Italy

***“Fast rehabilitation thanks to an optimal primary fixation
and minimally invasive surgery”.***

M. Krieger, MD
Gelenktzentrum Rhein-Main, Wiesbaden, Germany

Foreword

The COLLO-MIS stem has been developed to conserve the proximal femur bone stock with total preservation of the neck, avoiding the risk of leg length discrepancy. Its shape combined with the double-porous surface structure allows the restoration of the biomechanical equilibrium that is essential for an immediate primary stability and an optimal osteointegration.

A fast functional recovery for the patient is enhanced by the possibility to implant it with the most innovative bearing couplings (materials and diameters) and by its suitability for tissue sparing approaches. It is indicated for primary cementless total hip arthroplasty in patients with primary and secondary coxarthrosis, avascular and post-traumatic osteonecrosis, without severe deformities or previous surgeries and pathologies compromising the neck.

A good bone stock is fundamental to guarantee an adequate support to the stem.*

Since 2008, 230 patients are under evaluation for clinical and radiological outcomes following the COLLO-MIS stem surgery. 6-month results have already proved an excellent functional recovery (HHS>90 points), with a good improvement of ROM and no thigh pain in all patients.

The primary implant stability achieved intraoperatively has been consolidated with a good osteointegration between bone and implant. X-rays showed no radiolucent lines, no bone resorption due to stress shielding and no sclerosis**.

The following 8 clinical cases illustrate some interesting examples where good results were obtained with the neck preserving COLLO-MIS stem.

**Indications, contraindications and warnings are exhaustively reported in the surgical technique.*

***Unpublished preliminary data coming from an on-going prospective clinical study*

1 CLINICAL CASE



PREOPERATIVE

PREOPERATIVE

A 54-year-old female (168 cm height, 57 kg weight, 20 BMI), normal lifestyle, showed primary coxarthrosis of the right hip with presence of osteophytes, cysts and areas of calcifications. The patient suffered from severe pain with limitation of daily activities, as demonstrated by a poor Harris Hip Score (46 points) and a limited ROM (Flexion/Extension 90°/0°, Abduction/Adduction 20°/20°, External/Internal rotation 20°/0°).

HIP PARAMETERS

126°CCD, 36-mm femoral offset (35-mm contralateral offset)

TREATMENT

Primary cementless THA with COLLO-MIS stem (size 3), through antero-lateral tissue sparing approach, and ceramic/ceramic coupling.

POSTOPERATIVE	3-MONTH FOLLOW-UP	12-MONTH FOLLOW-UP
Immediate postoperative x-rays showed a properly positioned stem with a good restoration of anatomical parameters (CCD 139°, 34-mm stem offset, 2° diaphyseal axis-stem axis angle).	The patient had a fast and excellent functional recovery with no pain, a good walking performance (HHS 98 points, increased of 52 points) and an improved ROM (Flexion/Extension 110°/0°, Abduction/Adduction 35°/20°, External/Internal Rotation 40°/5°).	Radiographically, the stem was stable and well-osteointegrated with no radiolucent lines, sclerosis, no signs of stress shielding nor subsidence.



POSTOPERATIVE



3 MONTHS



12 MONTHS

2 CLINICAL CASE



PREOPERATIVE

PREOPERATIVE

A 49-year-old male (187 cm height, 92 kg weight, 26 BMI), developed primary coxarthrosis of the right hip. He had a marked pain and poor functionality, resulting in an unsatisfactory Harris Hip Score (62 points) and ROM (Flexion/Extension 90°/0°, Abduction/ Adduction 30°/20°, External-Internal Rotation 30°/0°).

HIP PARAMETERS

132°CCD, 41-mm femoral offset (48-mm contralateral offset), 10-mm dismetry.

TREATMENT

Primary cementless THA with COLLO-MIS stem (size 7), through antero-lateral tissue sparing approach, and a ceramic/ceramic coupling.

POSTOPERATIVE

The implant was properly aligned (140° CCD, 0° diaphyseal axis-stem angle, 43-mm femoral offset)

3-MONTH FOLLOW-UP

The functional recovery was totally regained, as demonstrated by the excellent Harris Hip Score (99, increase of 38 points) and mobility (ROM Flexion/Extension 100°/0°, Abduction/ Adduction 20°/20°, External/Internal Rotation 20°/20°). No residual dismetry was observed.

12-MONTH FOLLOW-UP

X-rays showed a stable implant with no radiolucent lines, sclerosis or osteolysis. No subsidence has been observed. The patient was very satisfied with the possibility to improve his quality of life.



POSTOPERATIVE



3 MONTHS



12 MONTHS

3 CLINICAL CASE



PREOPERATIVE

PREOPERATIVE

A 46-year-old male (180 cm height, 76 kg weight, 23 BMI), showed primary coxarthrosis of the right hip with presence of osteophytes, cysts and areas of calcifications. The Harris score was 68 points, but the patient had a moderate pain and a reduced ROM (Flexion/Extension 90°/0°, Abduction/ Adduction 15°/10°, External/Internal Rotation 15°/15°), which limited his normal activities, especially considering his young age.

HIP PARAMETERS

136°CCD, 33-mm femoral offset (24-mm controlateral offset).

TREATMENT

Primary THA with COLLO-MIS stem (size 2), through antero-lateral tissue sparing approach, and a ceramic/ceramic coupling.

POSTOPERATIVE	3-MONTH FOLLOW-UP	12-MONTH FOLLOW-UP
According to the analyses of the immediate post-op X-rays, the CCD angle was 138° and the diaphyseal axis-stem axis angle 1°.	Clinical outcomes were very satisfactory with a full regain of functional abilities (HHS 100 points, ROM: Flexion/Extension 125°/15°, Abduction/ Adduction 15°/30°, External/Internal Rotation 40°/20°) and total pain relief. The implant was optimally positioned and stable with no early complications.	The stem was osteointegrated with no radiolucent lines or any sign of adverse bone remodelling nor subsidence. The patient was fully satisfied with the clinical outcome.



POSTOPERATIVE



3 MONTHS



12 MONTHS

4 CLINICAL CASE



PREOPERATIVE

PREOPERATIVE

A 59-year-old male (185 cm height, 90 kg weight, 26 BMI), showed primary coxarthrosis of the right side. Osteophytes, cystis and areas of calcifications were observed. Marked pain and a reduced functionality affected his living status, as described by the unsatisfactory HHS (52 points) and ROM (Flexion/Extension 100°/0°, Abduction/ Adduction 20°/10°, External/Internal Rotation 25°/15°).

HIP PARAMETERS

133.9°CCD, 33-mm femoral offset (28-mm contralateral offset).

TREATMENT

Primary THA with COLLO-MIS stem (size 4), through antero-lateral tissue sparing approach, and a ceramic/ceramic coupling.

POSTOPERATIVE	3-MONTH FOLLOW-UP	12-MONTH FOLLOW-UP
Postoperative X-rays showed a CCD angle of 148°, while the diaphyseal axis-stem axis angle was 2°.	Functional recovery was very good (HHS 94 points, increased of 42 points), and a good pain relief was ensured to the patient. ROM: Flexion/Extension 110°/0°, Abduction/Adduction 40°/40°, External/Internal Rotation 15°/15°.	The initial implant stability has been consolidated with a good osteointegration. X-rays showed no radiolucent lines, no bone resorption due to stress shielding and no signs of subsidence. No other complications were found.



POSTOPERATIVE



3 MONTHS



12 MONTHS

5 CLINICAL CASE



PREOPERATIVE

A 27-year-old female (160 cm height, 50 kg weight, 19 BMI), showed coxarthrosis in the left hip, secondary to a previous homolateral osteotomy. She suffered from marked pain with serious functional limitation of her daily living, moderate limp and a poor Harris Hip Score (40 points). Range of Motion was limited (45° Flexion, 20° Abduction, 15° Adduction, 0° External Rotation) and it severely compromised her quality of life, in particular considering the very young age.

HIP PARAMETERS

140° CCD, 40-mm femoral offset, -5 mm dismetry.

TREATMENT

Primary cementless THA with COLLO-MIS stem (size 2), through postero-lateral tissue sparing approach, and a ceramic/ceramic coupling.

POSTOPERATIVE

Immediate post-operative X-rays showed the following parameters: 134° CCD angle and 42 mm femoral offset. Stem sizing and position were correct and no complications were found. No residual dismetry was observed.

1-MONTH FOLLOW-UP

X-rays showed a good and stable implant with no radiolucent lines, sclerosis or osteolysis. The patient showed a fast and remarkable functional recovery (HHS 92 points, increased of 52 points), with the possibility of walking normally without residual limping. ROM: 90° Flexion, 45° Abduction, 15° Adduction, 15° External Rotation.

6-MONTH FOLLOW-UP

A total functional recover it has been regained with the possibility for the patient to acquire her normal daily activities and a good quality of life. (HHS 100 points, increased of 60 points, ROM: 110° Flexion, 45° Abduction, >15° Adduction, 15° External Rotation).

PREOPERATIVE



POSTOPERATIVE



1 MONTH



6 MONTHS

6 CLINICAL CASE



PREOPERATIVE

PREOPERATIVE

A 76-year-old male (176 cm height, 80 kg weight, 26 BMI), developed primary coxarthrosis of the left hip, after having already received a contralateral THA. Even if the Harris Hip Score was fair (75 points), the patient's quality of life was compromised by pain and by limited ROM (80° Flexion, 20° Abduction, 15° Adduction, 15° External Rotation).

HIP PARAMETERS

128° CCD, 53-mm femoral offset

TREATMENT

Primary THA with COLLO-MIS stem (size 4), through postero-lateral tissue sparing approach, and a polyethylene/ceramic coupling.

POSTOPERATIVE	6-MONTH FOLLOW-UP	12-MONTH FOLLOW-UP
After surgery the CCD angle was 142° and the femoral offset 48 mm. Stem sizing and position were correct and no complications were found.	Despite the very short time from surgery, the patient had a considerable functional recovery X-rays evidenced a stable implant. (HHS 98 points, ROM: Flexion 110°, Abduction/Adduction 20°/>15°, External rotation 15°).	The stem was definitely well-osteointegrated and stable, with no signs of adverse bone remodelling or reaction, nor stress-shielding and osteolysis. The patient was very satisfied with the complete regained function (HHS 100 points).



POSTOPERATIVE



6 MONTHS



12 MONTHS

7 CLINICAL CASE



PREOPERATIVE

PREOPERATIVE

A 49-year-old female (155 cm height, 58 kg weight, 24 BMI), showed osteoarthritis of the left hip with positive Trendelenburg sign, marked pain and severe functional limitations.

Both Harris Hip Score (37 points) and ROM were poor (90° Flexion, 0° Abduction, 15° Adduction, 0° External Rotation).

HIP PARAMETERS

123° CCD, 48-mm femoral offset, 5-mm dismetry.

TREATMENT

Primary cementless THA with COLLO-MIS stem (size 1), through postero-lateral tissue sparing approach, and a ceramic/ceramic coupling.

POSTOPERATIVE	1-MONTH FOLLOW-UP	12-MONTH FOLLOW-UP
X-rays showed a correctly sized stem, no dismetry, a CCD angle equal to 136° and a 51-mm femoral offset.	The patient recovered fast and very good, in terms of both pain relief and functionality (HHS 96 points, increase 59 points). ROM: 110° Flexion, 20° Abduction, >15° Adduction, >15° External Rotation. X-rays indicated a stable implant.	The stem achieved a stable bony in-growth with no stress shielding, no osteolysis and no subsidence. Functionality further improved (HHS 100 points, ROM 130° Flexion, 45° Abduction).



POSTOPERATIVE



1 MONTH



12 MONTHS

8 CLINICAL CASE



PREOPERATIVE

A 67-year-old female (161 cm height, 65 kg weight, 25 BMI), showed osteoarthritis of the right hip. She suffered from a mild pain with moderate functional limitation and moderate limp, a poor Harris Hip Score (60 points) and a limited ROM (90° Flexion, 15° Abduction, 0° Adduction, 0° External Rotation).

HIP PARAMETERS

125° CCD, 48-mm femoral offset, 5-mm dismetry.

TREATMENT

Primary cementless THA with COLLO-MIS stem (size 4), through postero-lateral tissue sparing approach, and with a UHMWPE/ceramic coupling.

POSTOPERATIVE	3-MONTH FOLLOW-UP	12-MONTH FOLLOW-UP
After surgery the CCD angle was 141° and the femoral offset 48 mm. No dismetry was present.	X-rays confirmed the initial stability of the implant without subsidence or signs of stress shielding. The patient had a satisfactory clinical and functional recovery (HHS 96 points, increased of 36 points) with good mobility (ROM: 110° Flexion, 45° Abduction, >15° Adduction, >15° External Rotation).	The stem was well-osteointegrated, with no evidences of complications. The excellent regained functional recovery (HHS 96 points) allowed the patient to come back to her normal life style.

PREOPERATIVE



3 MONTHS



12 MONTHS

Limacorporate spa

Via Nazionale, 52
33038 Villanova di San Daniele
Udine - Italy
Tel.: +39 0432 945511
Tel.: +39 0432 945512
E-mail: info@limacorporate.com
www.limacorporate.com

Lima Implantas sl

C/ Lluça 28, 2°
08028 Barcelona - Spain
Tel.: +34 93 228 9240
Fax: +34 93 426 1603
E-mail: lima@limaimplantas.com
www.limaimplantas.com

Lima France sas

Les Espaces de la Sainte Baume
Parc d' Activité de Gemenos - Bât.A5
30 Avenue du Château de Jouques
13420 Gemenos - France
Tel: +33 (0) 4 42 01 63 12
Fax: +33 (0) 4 42 04 17 25
E-mail: info@limafrance.com
www.limafrance.com

Lima O.I. doo

Maksimirska, 103
10000 Zagreb - Croatia
Tel.: +385 (0) 1 2361 740
Fax: +385 (0) 1 2361 745
E-mail: lima-oi@lima-oi.hr
www.lima-oi.hr

Lima Switzerland sa

Birkenstrasse, 49
CH-6343 Rotkreuz - Zug
Switzerland
Tel: +41 (0) 41 747 06 60
Fax: +41 (0) 41 747 06 69
E-mail: info@lima-switzerland.ch
www.lima-switzerland.ch

Lima Japan kk

Koshin Building 8F.
4-5-1 Nishi-shinjyuku, Shinjyuku,
Tokyo 160-0023 - Japan
Tel.: +81 3 5350 0755
Fax: +81 3 5350 0766
www.lima-japan.com

Lima CZ sro

Do Zahrádek I., 157/5
155 21 Praha 5 – Zličín –
Czech Republic
Tel.: +420 222 720 011
Fax: +420 222 723 568
E-mail: info@limacz.cz
www.limacz.cz

Lima Deutschland GmbH

Kapstadtring 10
22297 Hamburg - Germany
Tel.: +49 40 6378 4640
Fax: +49 40 6378 4649
E-mail: info@lima-deutschland.com
www.lima-deutschland.com

Lima Austria GmbH

Ignaz-Köck-Strasse 10 / Top 3.2
1210 Wien - Austria
Tel.: +43 (1) 2712 469
Fax: +43 (1) 2712 469 100
E-mail: info@lima-austria.at
www.lima-austria.at

Lima SK s.r.o.

Zvolenská cesta 14
97405 Banská Bystrica - Slovakia
Tel.: +421 484 161 133
Fax: +421 484 161 138
E-mail: info@lima-sk.sk
www.lima-sk.sk

Lima Netherlands B.V.

Ginnekenweg 157
4818 JD Breda
The Netherlands
Tel: +31(76) 514.6393
Fax: +31(76) 521.8889
info@lima-nederland.nl
www.lima-nederland.nl

Lima Implantas Portugal Lda

Rua Olavo D'Eça Leal N°6 Loja-1
1600-306 Lisboa - Portugal
Tel : +35 121 727 233 7
www.limaportugal.com

Lima Orthopaedics

Australia Pty Ltd
Unit 1, 40 Ricketts Rd
Mt Waverley 3149
Victoria Australia
Tel.: +61 (03) 9550 0200
Fax: +61 (03) 9543 4003
www.limaortho.com.au

**Lima Orthopaedics
New Zealand Pty Ltd**

Zone 23
Unit 102 / 23 Edwin St
Mt Eden
Auckland 1024 - New Zealand
Tel.: +64 (09) 531 5522
Fax: +64 (09) 522 3380
www.limaortho.co.nz

Lima UK

United Kingdom

Hit Medica srl

Strada Borrana 38
47899 Serravalle,
Republic of San Marino
Tel.: +378 0549 961911
Fax: +378 0549 961912
E-mail: info@hitmedica.it
www.hitmedica.it

B.4201.83.000.1

051000

